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The Effects of Inter-Provincial Mobility on Individuals' Earnings: Panel Model Estimates for Canada

by Ross Finnie

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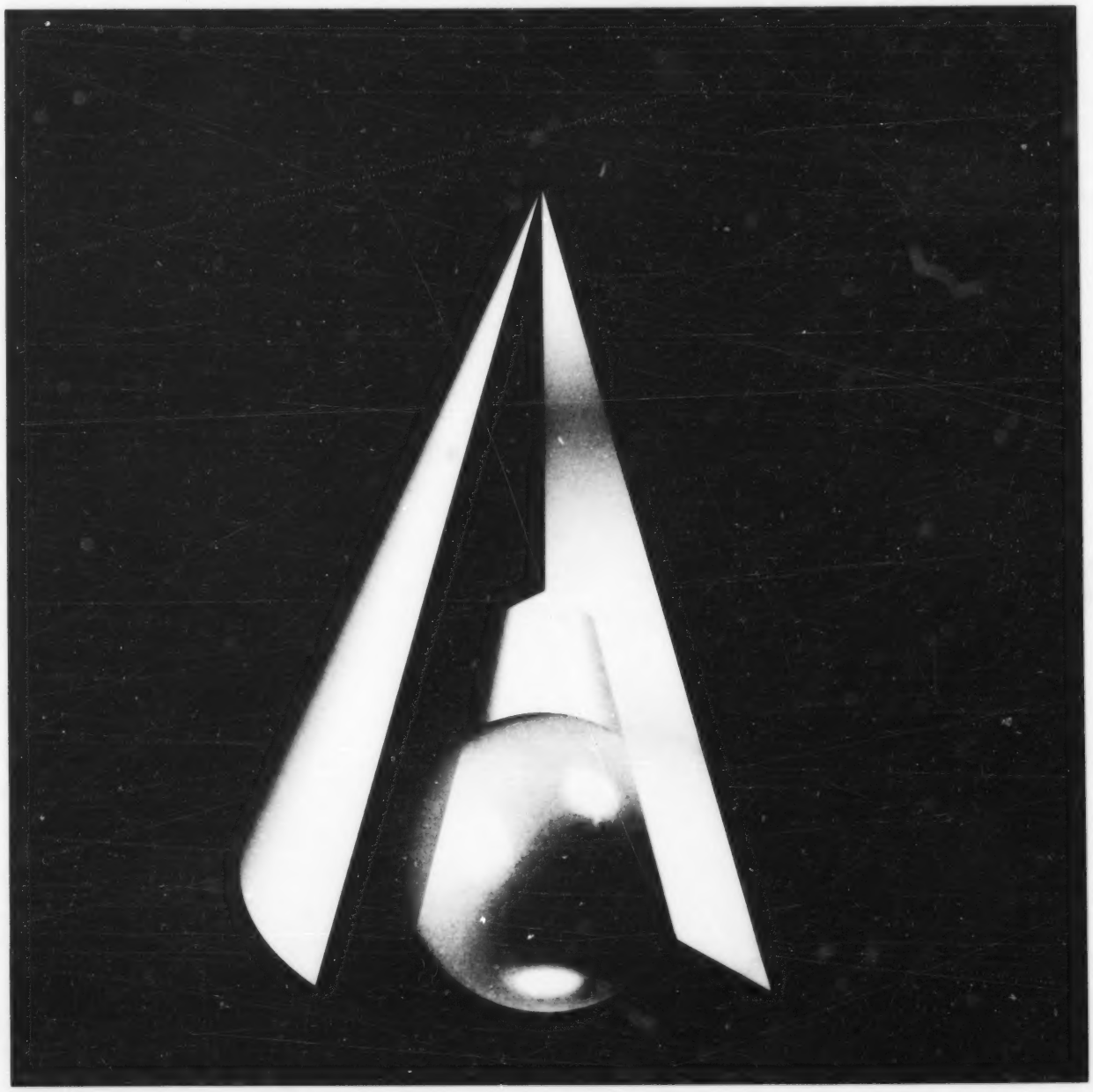

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This paper represents the views of the author and does not necessarily reflect the opinions of Statistics Canada.

Aussi disponible en français

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Abstract

This paper presents the findings of an empirical investigation of the effects of inter-provincial migration on individuals' earnings based on the newly available Longitudinal Administrative Database ("LAD"). The main results are based on a difference model which estimates the effects of mobility on (log) earnings which implicitly controls for initial earnings levels and other fixed effects, as well as other influences captured by the regressors included in the models. Inter-provincial mobility is found to be associated with statistically significant and in many cases quantitatively substantial changes in individuals' earnings, with these effects varying by age, sex, and province of origin. Pre- and post-move earnings profiles are also analysed, offering support for the validity of the difference model approach and indicating that movers are quickly integrated into local labour markets after their moves. Implications are discussed and possible directions for future research are suggested.

Keywords: Earnings models, human capital, migration, fixed effects models

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I. Introduction

There are many interesting and important questions relating to inter-provincial mobility, from the descriptive, through the analytical, to the directly policy-related. What is the general extent and specific direction of inter-provincial mobility flows (gross and net) and how do more recent patterns compare to earlier ones? How do mobility rates vary with individual characteristics such as age, marital status, the presence of children, labour market status, level of education, and occupation. How do environmental factors such as inter-provincial differences in income levels and employment opportunities affect the propensity to move? How much mobility leads to a return move and how much is permanent? What are the implications of inter-provincial mobility for inter-provincial earnings structures and regional disparities, labour market efficiency, and social programmes? Furthermore, a similar set of questions could be asked regarding inter-jurisdictional movements elsewhere, such as inter-state or inter-regional movements in the U.S., cross-national movements in the new Europe, and so on, thus placing Canadian issues pertaining to inter-provincial mobility in a broader context.

Given this importance, it is not surprising that there is by now a fairly substantial literature on inter-provincial mobility, based on both micro and aggregate data and using a variety of analytical approaches. We thus now know a fair amount regarding the general extent and direction of inter-provincial mobility, some of the determinants of these flows, the broad effects on individuals' earnings, certain implications for economic adjustment, and so on. Previous research has, however, been limited by the unavailability in Canada of the sort of general and extended longitudinal database which is best suited to the topic. Most simply, inter-provincial migration—being a dynamic process—requires similarly dynamic data to be properly studied.[1]

The contribution of this paper is, therefore, to exploit the recently available Longitudinal Administrative Database ("LAD") which has been constructed by Statistics Canada from Revenue Canada tax filer records to focus on one specific aspect of the topic: the effects of inter-provincial mobility on individuals earnings.[2]

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[1] Previous work on inter-provincial mobility (thus ignoring American research on migration, but see Greenwood [1975] for an early review of the relevant literature) includes the following. Courchene [1974], Grant and Vanderkamp [1976], Lin [1995], Osberg, Gordon and Lin [1994], and Vachon and Vaillancourt [1998], document the extent and direction of gross out-flows, gross in-flows, and net flows, as well as the detailed patterns of these inter-provincial movements. Models of the determinants of moving, including an important sub-literature which focuses on the role of fiscal variables, can be found in Day [1992], Day and Winer [1994], Dean [1992], Courchene [1970, 1974], Grant and Vanderkamp [1976], Lin [1995], Mills, Percy, and Wilson [1983], Osberg, Gordon, and Lin [1994], Robinson and Tomes [1982], Shaw [1986], Vachon and Vaillancourt [1998], and Winer and Gauthier [1982]. Investigations of the effects of inter-provincial mobility on provincial wage structures and related policies include Courchene [1974], Rosenbluth [1996], Shaw [1986], and Vanderkamp [1988]. Work on the effects of inter-provincial mobility on individuals' earnings—the topic of this paper—is reviewed below.

[2] A series of companion papers (Finnie [1998a, b, c]) using the same LAD data provides descriptive (i.e., non-econometric) analyses of inter-provincial mobility in terms of the extent and direction of flows in the short-run and over longer periods on a province-by-province basis; gross outflows, gross inflows, and the associated net flows by province on an annual basis over time; and the classification of individuals into stayers and various types of movers according to their longitudinal mobility behaviour and the associated income profiles. Another related paper, (Finnie [1998d]), focuses on the individual characteristics and environmental factors associated with inter-provincial mobility using a panel logit model approach.

The LAD comprises a very large (ten percent) sample of Canadian tax filers followed as individuals over time and matched into family units on an annual basis, thereby providing individual and family-level information on incomes, taxes, and basic demographic characteristics, including province of residence, in a dynamic framework.[3] The LAD thus allows the researcher to effectively observe the changes in earnings which occur as individuals move from one province to another, facilitating direct estimates of these effects (while controlling for other influences on earnings). Furthermore, the massive size of the LAD provides sufficiently large samples to estimate separate effects not only by age and sex, but also by specific province (and language group)—with such breakdowns turning out to be of central importance to the analysis.

The analytical approach employed is conceptually quite simple: individuals are identified in terms of their inter-provincial mobility status over each three-year sequence of data, with the associated observed changes in earnings then identifying the effects of moving using a first difference log earnings model. For example, the earnings profiles of individuals who were in a given province in year 1 but who moved to another province in the following year (the transition year) and then stayed in that new province the third year (thus representing a full year in the new jurisdiction) are compared to the earnings profiles of non-movers from the same original province, with the associated "mover" parameter identifying the average effect of moving from the province of origin to another. Similar parameter estimates are derived for other types of movers: "returners", "arrivers", and "transients" (as defined below). Separate models and moving effects are estimated for men and women of four different age groups each, generating eight sets of estimates in all, with the mobility effects allowed to vary by province (and language group) in each case.

Pre-move profiles are also analysed in order to test for pre-existing differences in the earnings trajectories of movers and non-movers which could bias the difference model estimates. Furthermore, post-move earnings profiles of movers are compared to those of non-movers of the provinces to which they moved in order to gauge the integration of movers into their new economic situations and test further for unobserved heterogeneity between movers and non-movers.

The paper is laid out in a straightforward fashion: the next section reviews the existing literature; the third section presents the econometric model and the data used in the analysis; the empirical findings follow in the fourth section; and the final section provides a brief summary of the major findings and offers some suggestions for future work.

II. The Existing Literature

This section begins with a general review of the data required for any meaningful investigation of the effects of inter-provincial mobility on individuals' earnings and the general shortcomings of most existing databases—and associated studies—in the Canadian context. In the second part, the few existing studies based on the requisite sort of longitudinal data are reviewed.

[3] Note that families and particular family members of filers are not (necessarily) followed, even as the relevant family information is attached to the individuals' files in each year; again, the unit of observation is the individual with (current) family information attached in each year.

1. The Key Data Requirements and the Dearth of Existing Studies

The primary reason for the relative lack of existing work on the effects of inter-provincial mobility on individuals' earnings is, as noted above, the lack of appropriate data. First, cross-sectional databases (e.g., standard labour force surveys, the census) are inherently ill-suited to the analysis of the effects of inter-provincial mobility on earnings because they typically report only earnings levels as of the survey date. Any comparison of the current earnings of movers and non-movers will confound the effects of inter-provincial mobility with any other earnings-related differences between movers and non-movers which are not otherwise controlled for (as discussed more formally in the theory section below).

For example, movers might typically have higher—or lower—earnings levels to start with, and to the degree these differences are not perfectly controlled for (via the inclusion of the relevant controls in a standard earnings model), any cross-sectional analysis will reflect these other influences along with the mobility effects *per se*. Thus, cross-sectional comparisons of movers and non-movers are likely to generate biased estimates of the effects of inter-provincial mobility on individuals' earnings, and it is typically impossible to identify even the direction of this bias, let alone its extent.[4] In short, since inter-provincial mobility is inherently a dynamic event, similarly dynamic—or longitudinal—data are required to analyse its effects on individuals' earnings.[5]

The standard longitudinal databases have, however, not been particularly appropriate to the task either. First-generation Canadian longitudinal databases, such as the Labour Market Activity Survey, have generally been both too small and too short (two to three years in length), while the recently developed Survey of Labour Income Dynamics (SLID) currently has just two years of data available and will thus require some waiting before it is suitable for any detailed analysis of inter-provincial mobility.[6, 7]

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[4] Marr and Millerd [1980] is a good example of work based on cross-sectional (census) data—with precisely these caveats not only acknowledged, but nicely explained, and unavoidably left unaddressed due to the limits of the available data.

[5] Attempts to get around this problem by modelling what the individual would have earned had he or she not moved using approaches which are in the spirit of the classic Heckman-type solution to sample selection problems may be found in Osberg, Gordon and Lin [1994], Robinson and Tomes [1982], and Nakosteen and Zimmer [1980]. The problem with this methodology is that the researcher must depend on various untestable assumptions regarding the structure of earnings and related stochastic processes; it is far preferable to actually be able to observe earnings levels before and after a move—the fundamental advantage of longitudinal data.

[6] For example, Osberg, Gordon, and Lin [1994] are forced to base their quite interesting analysis of inter-regional migration (and inter-industry mobility) using LMAS data on just 169 movers, with all moves registered in the same one-year 1986-87 period covered by their data—with no transition year and no opportunity to look at moves over other periods of time or the earnings dynamics of individuals before or after their moves. The SLID is of a comparable size, and thus faces similar size limitations in the shorter-run, although this problem will be eased as further years of data are collected. Fuuthermore, the much greater array of variables available will make it an interesting candidate for the study of various aspects of inter-provincial mobility. On the other hand, the analysis of long-term mobility patterns using the SLID will always be limited by the fact that under current plans, individuals will be included in the SLID for a maximum period of just six years (to then be rotated out and replaced with others). The sample size is likely to remain a problem for any more detailed analysis, such as, for example, the breakdown by age and sex undertaken here.

[7] The National Graduates Survey databases have a semi-longitudinal element (two interviews per cohort) which makes them suitable for looking at issues relating to inter-provincial mobility, and the author is currently engaged

The classic American databases (the PSID, the various NLS files, *etc.*)—which could in principle be used to investigate migration in the context of movements across states or regions—while certainly long enough, have also tended to be relatively small for the purposes of studying the effects of geographical mobility.

Note that these oft-referenced size deficiencies stem from the fact that inter-jurisdictional mobility is a relatively rare event in any particular year for a given individual or family, while the different effects of mobility on earnings by age, sex, and other characteristics multiply the size requirements due to the relatively large number of parameters which need to be estimated. Hence, what is a relatively large database for other purposes can at the same time be quite small in the context of estimating the effects of inter-provincial mobility on earnings.

2. Previous Work Based on Longitudinal Data

This said, there have been two quite interesting "first generation" Canadian studies of the effects of inter-provincial mobility on individuals' incomes carried out with early tax-based databases roughly similar in structure to the LAD data used here and employing conceptually similar—if somewhat more rudimentary (non-econometric)—approaches.

Courchene [1974] uses a longitudinal database constructed from individuals' tax files (also including unemployment insurance information) to look at the changes in individuals' incomes from 1966 to 1968, thus allowing for the assignment of each individual to a base year province (1966), providing a transition year during which a move was deemed to either have or have not occurred (1967), and permitting the observation of a full post-move year for movers and a comparable third year in the original province for stayers (1968). This use of three year sequences of data is similar to the approach used in the present study, where the concept is expanded to a continuous longitudinal sampling format.

While Courchene's methods are restricted to simple comparisons of mean income levels, the critical aspect of his work is that he controls for differences in initial income levels between movers and stayers by focusing on the changes in individuals' incomes over the three year interval spanned by the data to estimate the effects of moving—thus resolving the basic "cross-sectional" problem described above. The approach is, therefore, very similar to the one used here—extended to a multivariate econometric framework and including all possible three year comparisons of data over the entire 1982-95 period covered by the LAD data.[8]

Courchene, looking at males aged 15-64, finds generally positive effects of inter-provincial mobility on individuals' "total gross income" (the more preferable measure of labour market earnings *per se* was not available for all years in his data), with the estimated aggregate effect (all workers taken together) ranging up to an average gain of 26% in the case of men who moved from New Brunswick. The effects are especially strong for individuals who left the have-not provinces, while Alberta is the only province where out-migrants actually did worse than stayers (experiencing 3%

in joint work with John Burbidge of McMaster University to this end. The database is, however, obviously quite limited in terms of the underlying population it covers (recent post-secondary graduates), meaning that the results will not be generalisable to the general population.

[8] In his report, Courchene states the intention of undertaking such an econometric analysis in the future, perhaps with additional years of data, but these hopes were never realised.

less income growth over the relevant interval). Conversely, individuals who left a province but then returned generally did worse than stayers (as well, of course, as movers who stayed away).[9]

Courchene's work also resembles the present study in that he also compares the *pre*-move changes in the incomes of movers and stayers (again using simple comparisons of means, not econometric models). Not only are the pre-move *levels* different (thus necessitating the use of the difference/change method), but so too are the *slopes*—suggesting that the income changes associated with inter-provincial mobility were due to such individuals having steeper income profiles in general as well as the effects of the move *per se*. However, movers' profiles were relatively more steep over the period covered by their moves than in the pre-move period, indicating that there were, in fact, gains from the moves themselves (except, again, in the case of Alberta).

Grant and Vanderkamp [1976] employ a tax-derived database similar to the one used by Courchene (again merged with unemployment insurance records) covering the period 1965-71, as well as a generally similar methodology based on comparisons of the changes in income (total, wage, and self-employment) over time to first estimate the short-term effects (1969-70) of inter-provincial mobility on individuals' earnings (including women along with men in their analysis) and then to extend the analysis in a number of ways.

Not surprisingly, the most directly comparable results are at least qualitatively similar to those obtained by Courchene. The quantitative differences in their findings (the mobility effects found by Grant and Vanderkamp are generally smaller) may be at least partly because they do not employ a transition year and compare incomes in the third year to those in the first as does Courchene—meaning that the mover-stayer comparisons are not as clean; or because they include men and women together in their analysis, and the female effects are much smaller than the male ones. Nevertheless, the results generally agree qualitatively in that individuals who moved from the have-not provinces appear to have generally gained from their moves, while those who left Ontario, Alberta, and British Columbia did worse than stayers. The gains are, furthermore, greater for younger workers than older ones (as found by Courchene), and greater for men than women (although the authors express concern regarding the degree to which women are included in a representative manner in their samples).

Using a selected sample of individuals observed continuously over the 1966-70 period, Grant and Vanderkamp also identify "long-run" (four year) migration patterns and compare the income profiles of various types of movers and stayers—although the analysis is conducted in a very pooled manner (men and women of all ages from all provinces taken together). For this more selected sample and more aggregate analysis (while now obviously allowing for clearer comparisons of post- and pre-move incomes) they find more substantial gains for one-time movers than the simple one-year results previously revealed, diminishing returns for frequent movers, and that those who returned to their province of origin did worse than those who left and stayed away but (unlike Courchene) still better than stayers. Other results are reported for inter-locality, inter-regional, and urban-rural moves, as well as by occupation.

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[9] The baseline group is comprised of those who stayed not just in the same province, but within the same locality, as intra-provincial movers are separated out and analysed separately. (Intra-provincial movers generally did better than stayers, but not as well as inter-provincial movers).

Finally, it is worth noting some figures regarding mobility and earnings patterns reported almost in passing in Osberg, Gordon and Lin [1994] based on their LMAS data for the 1986-87 period. They find that, overall (the results are not broken down by province of origin or any other variable except sex), males who moved from one region (not province) to another had significantly greater one year increases in earnings than did non-migrants (22.8% versus 9.0%) while female movers had only slightly greater increases than did female non-migrants (15.0% versus 13.2%). Their results thus point to sizeable returns to migration for men (in that particular year, and for a relatively small sample), but only marginal gains for women.

These same authors also report some interesting figures regarding the reasons given for moving which might help explain the gender differences in returns to migration reported in their own work as well as that of others, including those reported below (the LAD data do not provide any information on the reasons for a move). They find that many more males than females cited job-related reasons for moving, while females were much more likely to say they moved because their spouse had relocated, or simply did not report a reason.[10]

In summary, the existing work using longitudinal data reviewed here has been based on some reasonably sound (sometimes excellent) methodological approaches and has generated a rather interesting body of findings regarding the effects of inter-provincial mobility on individuals' earnings. The current work is, therefore, in some sense the natural extension of these previous efforts—using a more sophisticated econometric version of the first difference approach and an updated and rather more extended database and similarly more elaborate sample construction. It turns out that the findings reported below are generally very consistent with these earlier findings, thus perhaps lending these newer and somewhat more refined estimates some additional credibility.

III. The Model and the Data

The first part of this section presents the econometric model and general estimation strategy employed in the analysis, followed by a general description of the LAD database, an explanation of the specific unit of analysis and the classification of individuals according to their mobility status, a rundown of the variables used in the estimation, and the sample selection rules.

1. The Econometric Model

Since Sjaastad [1962], economists have typically approached the topic of migration using a relatively straightforward utility maximisation framework where migration can be a means to increasing incomes, especially labour market earnings. While it would be interesting to develop a formal rate-of-return model which explicitly took costs and the (presumed) future flow of benefits into account, the standard route has been to simplify the issue to the more manageable one of estimating the changes in earnings (or some other measure of income) which occur at the point of migration.[11]

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[10] 33.6% of the males cited one of the job related reasons ("Transferred by employer", "To accept a job", and "To look for a job/work"), whereas just 17.0% of the females gave one of these reasons. Conversely, 16.2% of the females cited "Spouse/parent moved" and 26.4% did not state a reason, while the corresponding male figures were just 4.2% and 21.2%, respectively.

[11] See Courchene [1974] for an interesting discussion of the relation of the broader rate-of-return issue to the estimation of earnings effects.

The problem can be represented using a standard human capital earnings model framework, where the log earnings of individual *i* in a given period (corresponding to the availability of cross-sectional data) can be expressed as:

$$(1)\quad \ln(y_i) = X_i\beta + \alpha MIG_i + \varepsilon_i$$

where X represents a standard set of control variables appropriate to a human capital earnings function, α is meant to represent the effect of having migrated from one province to another, and ε is the error term.

The principal problem, however, is that migration ("MIG") is likely to be correlated with various earnings-related characteristics which are not otherwise controlled for in the model. Most simply, it is quite likely that migrants will have earnings levels which are generally different from those of non-migrants (even after controlling for the variables included in X). Let us represent these differences as a set of fixed effects denoted by ϕ, thus yielding the following:

$$(2)\quad \ln(y_i) = X_i\beta + \alpha MIG_i + \phi_i + \eta_i$$

The problem with any standard cross-sectional estimating equation (equation (1)) is, therefore, that it does not take into account the likely correlation between the unobservable term ϕ and MIG, resulting in biased estimates of the coefficient α. This bias could be either positive or negative, and could be large.

With the availability of longitudinal data, however, the problem can be resolved by using a first differences approach:

$$(3)\quad \Delta\ln(y_i) = \Delta X_i\beta + \alpha MIG_i + \Delta\eta$$

where, most importantly, the $\Delta\phi$ term has dropped out with the differencing, and MIG is defined as an inter-provincial move taking place between two points in time spanned by the data. Unbiased estimates of α can now be obtained by estimating standard OLS models using the difference variables ($\Delta\eta$ is now a well-behaved, iid error term, being a linear function of the stochastically well-behaved η term).

Equation (3) is basically a straightforward fixed effects model, and it is the results of the estimation of this equation which are reported below. (The findings of the estimation of equation (1) are also presented in order to demonstrate the bias which exists when a standard cross-sectional approach is used.) Separate equations are estimated for eight age-sex groups to allow for general differences in the structure of earnings and different effects of migration on earnings along these dimensions, while separate parameters are estimated for out-migrants of each province and language group. To this author's knowledge, this is the first use of such a model for estimating the effects of inter-provincial mobility on individual's earnings.

2. A General Introduction to the LAD

Since the LAD data are quite new and relatively unknown, this section offers a general description of the database, with the discussion oriented towards the topic of inter-provincial mobility.[12]

The Longitudinal Administrative Database ("LAD") is a 10% representative sample of Canadian tax filers followed as individuals over time and matched into family units on an annual basis, thus providing individual and family-level information on incomes, taxes, and basic demographic characteristics, including province of residence, in a dynamic framework. The first year of data is 1982 and the file ran through 1995 at the time this project was undertaken, thus determining the period covered by the analysis.

The LAD is constructed from Revenue Canada tax files, with individuals selected into the database according to a random number generator based on Social Insurance Numbers and followed over time through the linking of records across years by the same identifier. Individuals drop out of the LAD if they become non-filers, the principal reasons being that the individual has a low income and is, therefore, not required to file (and chooses not to do so—see below); is out of the country; or has died. New filers (young people, immigrants, etc.) automatically refresh the database in this same one-in-ten ratio.[13]

The LAD's coverage of the adult population is very good since, unlike some other countries (such as the U.S.) the rate of tax filing in Canada is very high: higher income Canadians are required to do so, while lower income individuals have incentives to file in order to recover income tax and other payroll tax deductions made throughout the year and, especially since 1986 (with the advent of the federal sales tax credit), to receive various tax credits. The full sets of annual tax files from which the LAD is constructed are estimated to cover from 91% to 95% of the target adult population (official population estimates), thus comparing favourably with other survey-based databases.

The LAD thus comprises a dynamic representative sample of the adult Canadian population—dynamic in that it follows the same individuals over time, and representative in that it reflects the general population in any given year and, given that most individuals file tax forms every year, representative in a longitudinal sense as well. This representativeness is especially significant in the context of an analysis of inter-provincial mobility, since survey based databases (as opposed to those based on administrative files, such as the LAD)—both cross-sectional and longitudinal—tend to have greater problems in capturing (and following) individuals who are generally "less stable" with respect to where they live, their job market behaviour, and other attributes, thus typically introducing general sample selection and attrition biases.

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[12] See Finnie [1997a-g] for other discussions of the LAD data and their use in other contexts.

[13] Unlike some other longitudinal databases, especially survey-based databases such as the American PSID, "replacement" observations for those who drop out of the LAD are not sought in any prescribed manner other than the underlying sampling scheme. In particular, there is no process whereby the number of leavers is replaced on an exact one-to-one basis, nor is there any explicit character matching of those who are added to the database with those who have left. Instead, all is accomplished via the simple one-in-ten sampling scheme as it draws from the underlying full (and thus representative) population of (new) tax filers, who are then followed over time.

Furthermore, since the LAD is comprised of annual observations, most inter-provincial moves of any importance can be identified and included in the analysis—as opposed to the length-biased sampling which characterises files with longer intervals between observations (such as from one census to another).[14] In short, the LAD performs well with respect to its representativeness generally, and is especially well suited to the study of inter-provincial mobility in this respect.[15]

Finally, the large number of observations on the LAD—in the range of two million in any given year—permits a detailed level analysis: even with the estimation broken down by age-sex group, there are enough observations to adequately identify all parameters of interest, including the effects of leaving each specific province. (In fact, a one-in-ten sample of the full LAD file was employed to keep the estimation numerically tractable.) Furthermore, the analysis could, in the future, be taken to a still deeper level of detail, such as estimating the models for other specific sub-groups or breaking down the mobility effects by specific destination province as well as province of origin—with the data standing a good chance of supporting such explorations (using the full 10% LAD where appropriate).

3. *The Unit of Analysis and the Classification of Individuals by Mobility Status*

The unit of observation used in this analysis is each three year sequence of data observed for a given individual. These sequences are first categorised in terms of the mobility status they represent, and then the first and third years provide the data points which enter the first difference earnings model specified above.

The underlying reason for adopting this approach is that the province variable on the LAD file represents where the person was living at year's end, while the earnings measure represents the amount received over the entire year. Thus, while a change in province from one year to the next can be identified in the obvious way, we cannot determine in which province—new or old—the second year's income was earned for those who moved. The second year must, therefore, be generally treated as a transition year.

If, however, an individual who moved from year 1 to year 2 was observed to remain in that same new province in the third year of the given three year sequence, the last year's income could be taken to have been earned in the new jurisdiction. (Short-run moves out of and back into the province of origin are thus ignored). "Year 3" post-move earnings in the new province can then be compared to the earnings received in the original province in year 1 before the move—with these changes compared, in turn, to the changes in earnings experienced by those who did not move. In short, each three year sequences permits the identification of a move, an associated "transition"year,

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[14] Longer-interval sample schemes would, for example, tend to under-represent shorter-term moves (which would simply not be identified) and lead to the mis-classification of individuals who left and returned to the original province within the sample period as non-movers.

[15] Atkinson *et al* [1992] and OECD [1996] discuss the manner in which administrative databases are generally characterised by better coverage and less attrition than survey databases, as well as providing more reliable measures of income data.

and a clear post-move year, with the associated earnings profiles of such "movers" compared to those of stayers in order to identify the effects of earnings on individuals' earnings.[16]

In this manner, individuals were classified as "stayers" (the same province in all three years), "movers" (as described above), "returners" (moved in the second year but then returned to the original province in the third year), "arrivers" (in the same province the first two years but then moved to a new province in the third year), or "transients" (a different province each year). Each additional year of data facilitates a new observation in a rolling fashion: years 2 and 3 in one three year sequence becoming years 1 and 2 for the next, and so on. Thus, an "arriver" sequence would beget a "mover" sequence if the individual stayed in that new province a second year, or a "transient" observation if the individual moved again, and so on. With the underlying LAD data running 1982-95 (14 years), up to 12 such observations were constructed for each individual, depending on the person's inclusion in the original LAD file and the sample selection criteria described below.

The unit of analysis (the three year rolling sequences of observations) is somewhat non-standard but well suits the purposes at hand in that it facilitates the estimation of equation (3). It should, however, be noted that this approach obviously focuses on the short-run changes in earnings associated with migration. Longer-term effects could be estimated by extending the analytical framework adopted here out to as many later periods as desired (i.e., years beyond the 3 year sequences defined above). However, the sample framework and associated selection issues would quickly become fairly complex, especially given the geometrically increasing number of mobility outcomes (some "stayers" will eventually move, certain more mobile individuals will eventually settle down, and so on).

The alternative approach for analysing the longer-term effects of inter-provincial mobility adopted here is to compare the post-move earnings profiles of movers with the profiles of individuals who were consistently in the same province. That is, model (3) is estimated for years 3 through 5, then 4 through 6—with the individual's mobility status still defined by years 1 through 3 and imposing the additional restriction that the individual remains in the same province through year 5 (in the first case) or year 6 (in the second). We thus compare the post-move earnings profiles of movers with those of incumbents of the provinces to which they moved at comparable points in time and with similar sample restrictions applied to see how the former compare to the latter—in effect, a test of the integration of movers into their new local (provincial) labour markets.

4. The Province of Origin and Related Language Groups

The individual's province identified in the LAD data used in this study is that in which taxes were payable—essentially where the individual was residing at year end.[17] This variable is well-suited to

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[16] That is, the $\Delta \ln(y)$ term in equation (3) is defined as $\ln(y_3) - \ln(y_1)$, and MIG_i takes the value of unity where the individual was living in a different province in the second year than in the first and then remained in that new province in the third year. As noted above, Courchene [1974] uses the very same approach of a base year, a transition year, and a post-transition year whose earnings are compared to the base year in his comparisons of the mean income levels of movers and stayers.

[17] Individuals living in the Yukon were included with British Columbians, while residents of the Northwest Territories were included with those living in Manitoba. Certain individuals with professional income have some choice as to their tax province, but their numbers are extremely small (.01% to .06% of the sample in any year)

the present analysis due to its being conceptually appropriate, tightly defined (including its residence-at-year-end specificity), and, being a key piece of information for tax purposes, its verification by Revenue Canada. An inter-provincial move is then identified as a change in the individual's tax province from one year to the next.

In order to estimate mobility effects by province of origin (year 1 in the three year sequences), the models include the relevant province indicators as regressors, along with interactions of these province indicators with each of the mobility status variables, except for stayers, who represent the omitted groups against which the other mobility groups are compared. Thus, all individuals living in, for example, Newfoundland, in the first year of a three year data sequence share that common indicator (with Ontario as the omitted category), while the "Newfoundland mover" variable captures the difference in the change in earnings of those who meet the mover definition described above and the baseline Newfoundland stayers. A positive coefficient on this variable would thus represent the extra increase in earnings experienced by those who moved from Newfoundland as compared to those who stayed in the province—the gains from migration. Other mobility status interactions are defined for each province in a similar manner (returners, arrivers, transients).

Given the importance of language in the Canadian context, two minority (official) language variables are also defined: one representing anglophones in Quebec, another representing francophones outside of that province.[18, 19] This yields a series of province-*cum*-language variables. Given the particular specification used here, Ontario anglophones represent the overall omitted province-language category, the province indicators other than Quebec imply the use of English (omitted) and capture the differences in earnings growth rates between anglophones in those provinces and the baseline English-speaking Ontario group. The Quebec variable, on the other hand, implicitly captures the effect of being a francophone in that province relative to the omitted Ontario anglophone baseline, as the English-Quebec variable allows for differences between anglophones and francophones in that province. Similarly, the French-ROC ("Rest of Canada") variable captures the difference between francophones and anglophones in whichever province the individual resided outside of Quebec (with that effect assumed to be constant across all provinces). The usual mobility status interactions are created for the minority language groups in the same way as for the basic province indicators.

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and the relevant choices are restricted in such a way that any one would be acceptable for the purposes of this study.

[18] Language is defined on the LAD file as the language of the tax form the individual completed. No other language (or ethnicity) information is available.

[19] A specification along these lines was first suggested to the author in the context of another project by Ronald Meng of the University of Windsor. Note the advantage of this joint treatment of province and language to specifications where province and language effects typically enter independently, with the inclusion of various province/region indicators and a single variable to represent francophones regardless of where they live. The conventional specification does not, in particular, allow for the anglophone minority in Quebec to exhibit different behaviour from the francophone majority in that province, while the typical omnibus "French" variable captures an amalgam of what may be quite diverse effects for francophones inside and outside Quebec. Allowing for minority language effects would seem to be especially important in the context of a study of inter-provincial mobility. It should be noted that the language variable pertains to that used to complete the tax form, meaning that bilingualism and other languages are not captured by these data.

5. Other Variables Included in the Models

A number of other control variables are included in the models, entered in terms of their values in year 1 in the three year sequences. These include family status (unattached, childless couples, couples with children, and lone parents), area size of residence (a series of categorical variables running from large urban centres to rural areas), and age and age squared (to capture the additional age effects within each of the age-sex groups for which the model is estimated separately). Changes in these variables (true ΔX measures in equation (3)) are ignored, which is equivalent to assuming that such changes are orthogonal to the earnings effects of inter-provincial mobility and/or that any such effects are small—a reasonable and convenient first approximation in the present case. Finally, a series of year dummies are entered to control for general economic conditions.

There is perhaps one notable omission on the list of regressors: education. It would certainly be interesting to estimate the different effects of inter-provincial migration by level of education, but the variable is simply not available on the LAD file. The same is true for occupation. At the same time, there should be no significant bias introduced as a result of these omissions—instead, the parameter estimates simply represent the relevant effects averaged across all education levels taken together.[20]

6. The Earnings Measure

The relevant income concept employed is wage and salary income plus net self-employment income, expressed in constant 1995 dollars and capped at the average income level of the top one-tenth percentile.[21] The focus here, then, is on mobility as it relates to labour markets, as opposed to any more global definition of income.[22]

7. The Sample Selection Rules

Each three year sequence of observations was included in the estimation samples according to the following criteria. Individuals could be included for some sequences of years but not others, depending on the specific years they are included in the LAD and pass the selection rules.

First, individuals had to be tax filers and included in the basic LAD file each year. Second, only those between the ages of 20 and 54 (inclusive) in the first year of each three year sequence are

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[20] It would be fairly essential to control for education were the analysis based on *level* equations—rather than the first difference models employed here. But since education rarely changes from one year to the next (especially with students deleted from the analysis—see below), the effect of omitting education is mostly limited to the differences in the rates of change in earnings from one year to another by education level. And while earnings undoubtedly increase more (on average) for individuals with higher levels of education, these differences are unlikely to be greater than a percentage point or two over the three year sequences which form the unit of analysis in this study—a magnitude which is extremely small relative to the mobility effects reported below.

[21] For the caps, the mean earnings value of those in the top one-tenth of the highest income percentile was calculated for each year 1982-94, with the average of these values over all years (1982-94) then becoming the cap, applied uniformly in all years.

[22] The models have also been estimated using market income—a broader concept of income than earnings. The results, available from the author, are generally very similar to those reported below based on the earnings measure.

included. The lower age cut-off was adopted to eliminate the majority of pre-university/college students and to generally restrict the analysis to decision making adults (albeit with an arbitrary cut-off), while the upper age limit is meant to focus the analysis on the working age population and avoid issues related to the transition to retirement—a dynamic worthy of study on its own. Third, full-time post-secondary students were excluded on the grounds that their mobility decisions are driven by different factors than those obtaining for the rest of the population and would, in any event, be better investigated using alternative data sources. This exclusion was facilitated by imputing student status based on the relevant tax deductions available in the LAD data.[23] Finally, individuals must have had positive earnings in the first and third years of each three year sequence—corresponding to the data points represented in the estimation of model (3).

8. The Age-Sex Groups

Separate models were estimated for each of four different age groups for each sex (with age defined according to the first year of each three year sequence): "Entry" (20-24 inclusive), "Younger" (25-34), "Prime-Younger" (35-44), and "Prime-Older" (45-54). The reasons for restricting the analysis to those aged 20-54 have been discussed above, while the chosen categorisations are simply meant to split individuals into various major phases of the life cycle. The specific choices remain essentially arbitrary, but serve the purposes at hand: allowing for different earnings structures generally, and mobility effects specifically, by age.[24] Recall that age is also entered as a quadratic in each of the separate age-sex models as a further control variable.

IV. The Empirical Findings

The presentation of the empirical findings begins with some simple mean earnings comparisons of movers and stayers by age-sex group and province of origin in order to establish the general nature of these profiles and to motivate the use of the difference model. These initial descriptive results are followed by some simple "cross-sectional" level equation results which establish the benchmarks against which the main difference model results may be compared, which come in the fourth part of the section. The estimation results for the pre- and post-move earnings profiles are presented in the last parts of the section.

1. Mean Earnings Patterns of Movers and Stayers

Tables 1a (all individuals taken together), 1b (by sex), and 1c (by age and sex) present the mean earnings of movers, stayers, and all others combined (returners, arrivers, transients – all as defined above) in the first ("pre-move") and third ("post-move") years of each sequence of observations, as well as the related percentage change in mean earnings over these intervals.[25] While this makes for a good number of some rather dense tables, some of the key patterns emerge only at this level of

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[23] This was a relatively elaborate exercise, as described in greater detail in Finnie [1997a, c, d, e].

[24] These age groups also correspond to those used in other LAD-based work undertaken by the author (Finnie [1997a-e, g]), as well as in other joint work (Beach and Finnie [1998], Finnie and Gray [1998]), thus allowing for comparisons across these different elements of the LAD research agenda.

[25] Earnings figures are rounded to the nearest 100 dollars. Calculations based on cells with less than 15 observations are not reported.

detail. The discussion will, however, be limited to the points which are most salient to the major themes of this paper, with a more detailed analysis of a similar set of results offered elsewhere.[26]

For males (Table 1c), earnings levels and growth rates generally trace out the expected life-cycle pattern. Focusing for convenience on the modal stayer groups in each province, earnings levels are generally (although not uniformly) progressively higher with each age group, with the greatest differences being between the Entry (aged 20-24) and Younger (25-34) groups and considerably smaller gaps between the two Prime groups (Prime-Younger, aged 35-44, and Prime-Older, aged 45-54). These cross-sectional profiles are matched by the rates of earnings increases over the relevant three year intervals covered by the underlying observations, these being greatest for the Entry group (increases in the 17% to 28% range), with the profiles then flattening out to what are actually slight declines in mean earnings levels for the oldest (yet still "prime" by most labour market standards) age group.[27]

Secondly (still keeping with males), and more important to the specific topic of this paper, inter-provincial movers generally had greater increases in earnings than stayers, often significantly so, with these differences being greatest for the younger groups of workers and then tailing off for the older groups. Entry-aged male movers had earnings increases ranging from 18% to near 100% and even beyond in one case (Newfoundland), while stayers had average gains in the 17% to 28% range noted above. Younger movers had gains mostly clustered in the 15% to 28% range, versus the increases of under 10% amongst the corresponding stayers in each province; while the patterns are more mixed and the differences generally much smaller for the two Prime groups (especially Prime-Older).

In addition, the mover-stayer patterns vary in a systematic manner by province. The apparent advantages of moving—larger and more consistently advantageous changes in earnings—are most evident in the generally lowest income Atlantic provinces and also low income Saskatchewan. Conversely, movers did worse than stayers in high income Ontario, while in Alberta, another high income jurisdiction, movers and stayers had approximately equal increases in earnings, except for the Entry group, where movers had the advantage. On the other hand, the income-related pattern is not perfect, as movers of all age groups did better than stayers in British Columbia, another high income province, while the opposite holds (except for the Entry group) for Manitoba, which has below average incomes.

Finally, males' initial earnings levels also vary significantly and systematically by mobility status—with important implications for the estimation of the associated mobility effects (as discussed above). Entry-aged male movers, for example, had lower initial earnings levels than stayers in every province except Quebec—meaning that comparisons of the earnings levels of movers and stayers at a given point in time would in most cases tend to under-estimate the effects of moving. For the Younger group, however, the relative earnings levels of movers and stayers vary by province—implying a similarly mixed "cross-sectional" bias; while for the Prime age groups, movers generally had higher initial earnings levels than stayers, meaning that the bias would generally go in the opposite direction to that of the Entry group.

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[26] See Finnie [1998a, c].

[27] See Finnie [1997a, b] for other work with the LAD data which focuses on cross-sectional earnings patterns and Finnie [1997c, d, e] regarding earnings dynamics.

Females' mean earnings levels are uniformly lower than those of males, but the gender differences in growth rates are perhaps not as great as might have been expected. Indeed, apart from the Entry groups, there are many cases where the women (of a given age group, in a given province) show greater earnings increases than do men—this holding across the board for the Prime-Younger category. While these gender earnings patterns are interesting and important, they have been investigated in other papers by the author (see the references cited above), and here we focus on the mover-stayer patterns.

More important here, then, is that the female mover-stayer patterns are different from those of men in some important ways. Although Entry-aged female movers did better than stayers in every province except Ontario (as for men), older female movers did worse than stayers in a relatively greater number of cases than was true for males, and many of the mover advantages which are found are not as great as for men, especially for the Entry and Younger groups, where the gains are generally greatest. It was also somewhat more common for female stayers to have had higher initial earnings levels than movers than was the case for the males.

In summary, these simple mean earnings figures suggest that moving from one province to another has tended to affect individuals' earnings to a significant degree, that there are also pre-existing differences in the earnings levels of movers and stayers, and that these relationships vary by province, age group, and sex—all of which points to the importance of using the first difference approach to estimating the effects of moving and of breaking the entire analysis down along these dimensions.

2. Level Equation Results

Tables 2a (males) and 2b (females) show the results of the estimation of the benchmark "cross-sectional" model (1), where log earnings in year 3 are regressed on various control variables plus the individual's mobility status: stayer (the omitted category), mover, returner, arriver, and transient. In order to focus the discussion on the more cleanly defined categories, the parameter estimates for the arriver and transient categories are not presented—with significant economies of presentation thus realised due to the fact that each category is associated with 12 additional parameters, corresponding to the province-language groups for which each set of mobility parameters has been estimated. These results are available from the author upon request.

The estimation results for the four male groups (standard F tests confirmed the need to estimate separate models by age group) generally look sensible with respect to the province variables (recall that Ontario is the omitted category), family status, age and the intercept shifts for each calendar year. As for the effects of having moved from one province to another (and then stayed in the new province), many of the associated earnings differences are quite large and statistically significant.

Most notable, perhaps, are the strong, positive differences in earnings levels seen for men who moved from the Atlantic provinces, with the coefficient estimates ranging as high as .840 and the only non-positive point estimate being for Prime-Older movers from New Brunswick.[28] The mover

[28] Recall that in a log earnings model, for "small" changes the coefficient estimates correspond to the percentage effect on earnings, while such direct transformations increasingly over-approximate the effects as the coefficient estimates become larger. Nevertheless, many of these effects remain large by any standard, as can also be seen by

coefficients are also uniformly positive and in many cases statistically significant for the two prairie provinces, and tend towards the positive for Quebec as well, while they are almost all negative for Ontario, Alberta, and British Columbia. The minority language indicators are somewhat mixed, and further discussion of these is reserved for the (preferred) difference models presented below.[29]

As for returners, their earnings are in the majority of cases lower than those of stayers, and in almost every case below those of one-time movers (the Prime-Older group offers the most exceptions in these regards).[30] These patterns reflect a mixture of smaller earnings increases over the relevant three year intervals plus lower earnings levels to start with.[31]

The female level equations are similarly well-behaved in general (province, family status, age, year), but show very different mobility effects than the male equations. The move indicators tend to be much less positive and less statistically significant where the male effects are mostly strongly positive (Atlantic Canada), substantially negative where the male effects are more moderately positive (the prairie provinces), and much more strongly negative where the male effects are already in this direction (Ontario, Alberta, British Columbia). The returner effects are also generally more negative than those found for males.

3. *The Difference Model Estimates*

Tables 3a and 3b present the results for the preferred difference models which implicitly control for individuals' initial earnings levels and other fixed effects, as well as for the other factors captured by the regressors included in the models. The coefficient estimates should now generally be interpreted as the associated partial effects on the change in earnings (i.e., growth rates) over the three year sequences which comprise the unit of analysis, while the mobility variables measure the change in earnings associated with moving from one province to another. The results are also portrayed graphically, with Figures 1a and 1b showing the predicted change in earnings over the relevant three

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comparing them to the coefficient estimates on some of the other variables included in the models, such as the general differences in earnings level by province or the effect of being married (effects in the 0.25 range).

[29] Given that the individual's original province is included in the models, initial earnings levels (year 1) are controlled for at this aggregate level—for example, individuals who were in each of the Atlantic provinces will have had generally lower earnings than individuals living in Ontario that year. Furthermore, the mover-stayer categories will reflect the associated differences in earnings levels as of the final year (year 3), including any effects from moving. The problem is that initial differences in earnings are, in this specification, not captured at the *individual* level, and thus any such differences which are correlated with mobility status will be captured by the move indicators—along with the *true* effects of moving *per se*. This is, of course, precisely the reason the difference model approach is required.

[30] A single "Atlantic Returner" coefficient captures the relevant effects for Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick all combined. This aggregation was necessitated by the relatively small number of observations for this category for certain age groups, but the separate coefficients generated by a preliminary set of regressions were quite similar (although possessing large standard errors), indicating that the general indicator represents the individual effects reasonably well.

[31] Mean earnings levels in each period and the associated changes over time are not shown for this particular group in Table 1a, but are available from the author.

year intervals for stayers, movers, and returners, holding the effects of the other variables included in the models constant.[32]

For both males and females, the models generally perform quite well with respect to the various control variables, but our discussion will focus on the relevant mobility effects. Beginning with the males, the effects of moving to another province from Atlantic Canada are now seen to be almost uniformly positive (there are just two exceptions) and in many cases very substantial, with the largest and most statistically significant effects found for the Entry and Younger age groups, for whom the coefficient estimates range from 0.137 (representing an increase in earnings of approximately 13%) to a rather astounding 0.883 (Entry group leavers from Newfoundland).

While the directions of these effects are generally similar to those of the level equations, there are clear patterns to the differences in the magnitudes of the effects obtained with the two approaches, with these differences conforming to the conjectures regarding the likely biases of the level equation estimates based on the simple mean earnings patterns seen in Table 1a. Thus, the mover effects generated by the fixed effects models are larger than those of the level equations for three of the four Entry-aged Atlantic groups, while for the other age groups all the difference equation estimates except one are smaller than those obtained with the level equations.

The results for Saskatchewan are of a similar nature to those of Atlantic Canada: uniformly positive and statistically significant coefficient estimates on the mover variable and larger effects for the two younger groups than the older ones. Also, once again the fixed effect estimate is greater than the level equation estimate for the Entry group and either basically unchanged or lower for the older groups.

The fixed effect results for British Columbia are, on the other hand, actually reversed in sign from what was found with the level equations—the mover coefficients are now all positive, and statistically significant for all but the oldest group, as compared to the significantly negative effects found for each group previously. The Alberta estimates have also shifted qualitatively to some degree, with the coefficient estimates changing from mostly negative, and sometimes significantly so, to generally being near zero and non-significant (the Prime-Older group goes from a negligible positive effect to a small negative one).

For Ontario, the sizeable and statistically significant negative mover effects obtained with the level equations for the Entry and Younger groups are reduced in magnitude with the difference models, while the effects are rendered even more negative for the two Prime groups—these differences in the shifting of results across the two approaches reflecting the oppositely signed biases which were evidently operating for the younger and older age groups in the simpler specifications (again, as intimated by the mean earnings figures seen above). The Manitoba effects also shift significantly but in different ways across the various age groups, going from moderately positive to more strongly positive for the Entry group, from marginally positive to marginally negative for the

[32] This was done by evaluating the models using the mean values of age and age squared for each group; assuming the individual was unattached for the Entry groups, married but with no children for the Younger groups, and married with children for the two Prime groups; and using the omitted 1984 base year. The predicted values were then based on the province of origin in year 1 for stayers, and adding the associated mover/arriver effects for migrants.

Younger group, and from significantly positive to negative (but non-significant) for the two older groups.

Finally, the effects of leaving Quebec are now seen to be strongly positive for the two younger groups (roughly comparable to the gains observed for Atlantic Canada), but only moderately positive/negative for the Prime-Younger/Older groups—at least, that is, for the francophones of that province captured by the Quebec-mover variable. The departures from these "general" Quebec effects for anglophones are captured by the English-Quebec mover variable, and the associated coefficient estimates point to considerably smaller gains from inter-provincial mobility for English-speaking Entry and Younger aged individuals (0.439 - 0.179 = 0.260 and 0.283 - 0.101 = 0.182), little difference for the Prime-Younger group (a point estimate of just 0.009 on the English-Quebec variable), and a considerably more negative effect for the Prime-Older anglophone group relative to francophones (0.073 + 0.137).

Conversely, the French-ROC mover coefficient estimates point to a smallish advantage to moving for Entry or Younger francophones living outside of Quebec relative to anglophones living in the same provinces, and comparably sized negative effects for francophones over anglophones for the older age groups. On the other hand, none of the minority language mover coefficient estimates are statistically significant, so these results should be seen as rather speculative.[33]

Turning to the effects of leaving and then returning to the province of origin, the "returner" coefficient estimates are now generally smaller and less statistically significant than they were with the level equations—suggesting that the lower earnings levels of returners seen above were largely due to such individuals having low earnings to start with, as opposed to the effects of their mobility *per se*. The sole clear pattern is that individuals who left and then returned to Ontario generally did worse than stayers, and worse than movers who then stayed in their new provinces as well (the Prime-Older group excepted), thus reinforcing the finding that men who moved from Ontario have generally comprised a distinct group of downwardly mobile workers (at least in terms of nominal earnings levels). Apart from this, the returner coefficient estimates tend to be negative, but are rarely statistically significant and a fair number are actually positive—making it difficult to identify any other general tendencies.

For females, the difference models generate quite different mobility effects than those found for males. For example, although the Atlantic province mover coefficient estimates for the Entry groups are all substantially positive and statistically significant in all cases (except for tiny Prince Edward Island), as was true for males, the effects are smaller in each case. Furthermore, there is no clear pattern to the Atlantic mover effects for the three older age groups (sometimes positive, sometimes negative, rarely significant)—in contrast to the generally positive and sometimes statistically significant effects found for men.

Looking across all provinces and all age groups, the estimated female mover effects are in fact overwhelmingly (35 of 40 cases) "lower" than the male estimates—less strong where the effects for both groups are positive, sometimes negative when the male effects are positive, and more decidedly negative when both coefficient estimates go in this direction. From another perspective,

[33] More detailed models with out-of-Quebec francophones divided into Acadians, francophone Ontarians, and others were also estimated, but led to convergence problems and relatively imprecise coefficient estimates, and were therefore abandoned.

the female mover effects are considerably more likely to actually be negatively signed, especially for the three older age groups, this being true in 19 of the 30 relevant cases shown in Table 3b—as opposed to negative coefficient estimates in just 11 of these cases for males.

The move-and-return effects also differ along gender lines, perhaps best summarised by noting that for females, 22 of the 28 coefficient estimates are negative, 7 of them significantly so, while the corresponding figures for males are 16 and 2 respectively. From another point of view, the estimated female effects are "more negative" than the male estimates in 19 of the 28 cases. In short, female returners generally did worse than female stayers, and relatively worse than male returners as well.

These gender patterns are obviously consistent with a family-based ("male chauvinist") model where women are more likely to move in support of their spouses' careers, even when this results in a decline in their own earnings. They also presumably reflect the tendency for women to be more commonly found in labour market segments—defined, for example, by occupation—where previous evidence has shown the benefits of migration to be more attenuated.[34] These conjectures are reinforced by the observation that the mover effects are least dissimilar for the youngest groups of men and women—the point in the life cycle where the family context of decisions is less important and gender differences in occupational patterns have not yet fully emerged.

4. Testing the Pre-Move Earnings Profiles

We now look at the *pre*-move changes in movers' earnings, primarily in order to test the validity of using our difference models for estimating the effects of mobility on individuals' earnings. If it were found that movers were already on significantly different trajectories than stayers before they actually moved (and especially if we found these profiles to resemble the mover effects estimated across the actual moves, as seen above), this would suggest that the move coefficients were capturing, at least to some degree, the effects of individual heterogeneity (in the differences) rather than the effects of moving *per se*, thus requiring the appropriate adjustments to the estimates.

Tables 4a and 4b thus show the effects of adding to the fixed effects models a series of "pre-move" variables which represent the relevant intervals of those who subsequently left their home province.[35] Although a small number of the pre-move coefficient estimates are individually statistically significant, there is no clear pattern to the results, and the appropriate F-tests indicate that the coefficients on the blocks of pre-move variables are in no case statistically significant from zero. The other coefficient estimates (including the actual mobility indicators) are, meanwhile, little changed. These findings indicate that the fixed effect model approach is indeed appropriate to the task and that the results reported above should be taken as good estimates of the effects of inter-provincial mobility on individuals' earnings.

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[34] See, for example, Grant and Vanderkamp [1976].

[35] More specifically, an individual identified as a mover over a given sequence of years 1 through 3 is now identified as a "pre-mover" over the first year of the relevant sequence and the preceding two years. The condition that the individual was in the same (original) province each of these years is also added so as to isolate the heterogeneity effects from all mobility effects *per se*. Finally, since such observations require 5 consecutive years of data for given individuals, the samples were generally restricted to observations meeting this criteria so as to avoid any influences of (asymmetric) length-biased sampling.

5. Post-Move Earnings Profiles

A similar approach is used to inspect post-move profiles, in this case comparing movers to the incumbents of the provinces to which they migrated, thereby allowing us to see how quickly movers became integrated into their new local labour markets and providing an additional test for omitted heterogeneity. Tables 5a and 5b thus present the results of models which include "post-move" variables for the first complete three year interval in the new province following the move. Tables 6a and 6b repeat this exercise for the next (rolling) three year period (that is from the second through fourth years in the new province).[36]

While there are again a number of statistically significant coefficient estimates for the first complete three year period in the new province, only two of these remain significant for the following sequence of years, and in each case the relevant F test again indicates that the blocks of "post-move" coefficient estimates are not significantly different from zero. The data thus indicate that movers rapidly integrate into their new "local" labour markets and are not generally different from non-movers in any manner which might affect the fixed effect estimation results reported above.[37]

V. Conclusion

This paper has presented the findings of an empirical investigation of the effects of inter-provincial migration on individuals' earnings based on the newly available Longitudinal Administrative Database ("LAD"). The main results are based on a difference model which estimates the short-run effects of mobility on earnings (over the three year sequences which comprise the sample structure) while controlling for individuals' initial earnings levels and other fixed effects as well as other factors which affect the changes in individuals' earnings over time captured by the regressors included in the models. Separate models were estimated for eight different age-sex groups, with separate mobility parameters estimated for each province in each of the models.

The major findings may be summarised as follows:

- Both the simple mean earnings patterns and comparisons of level equation results with those obtained by the preferred difference models indicate that it is indeed necessary to control for differences in the pre-move earnings levels of movers and non-movers when estimating the effects of inter-provincial mobility on earnings, with the magnitude and even direction of the "cross-sectional" bias varying by age, sex, and province.

- Based on the preferred difference models, inter-provincial mobility is found to be associated with statistically significant and in many cases quantitatively substantial changes in individuals' earnings, with these effects varying i) by age: much greater effects for younger workers than older ones; ii) by sex: many strong positive effects for men versus weakly positive or negative effects for women; and iii) by province of origin: quite uniformly strong, positive effects (for men) who moved from the have-not provinces, generally smaller and more mixed effects for those who moved from the

[36] Sample restrictions similar to those pertaining to the pre-move tests, discussed above, are imposed.

[37] Earnings *levels* may, however, generally be different—as indicated in the simple univariate framework represented by the cross-tabulations seen above.

wealthier provinces, and Ontario out-migrants set apart in being generally characterised by negative (nominal) changes in earnings levels for all groups.

- Individuals who moved and then returned to their province of origin in many cases had lower final earnings levels than stayers and other movers, but the smallish effects found in the difference models indicate that these differences stem more from differences in initial earnings levels than the associated mobility effects *per se*, especially for men, with the female returner effects being more distinctly negative.

- The similarity of the pre-move profiles of movers and non-movers suggests that the difference model approach is indeed appropriate to the estimation problem at hand; that is, the associated changes in earnings would appear to be the result of the moves themselves rather than any pre-existing differences in the earnings profiles of movers and stayers.

- The analysis of the post-move earnings profiles of movers indicates that such individuals tend to be rapidly integrated into the local labour markets of the provinces to which they move, while also offering further evidence that the measured mobility effects represent the effects of moving *per se* rather than unobserved differences in the attributes of movers and stayers.

These results are interesting not only for what they tell us about how inter-provincial mobility affects individuals' earnings, but also for the inferences they permit regarding the inter-provincial structure of labour markets and the "story" of individuals' transitions from one market (province) to another. In short, movers tend to have had different earnings *levels* than non-movers but to have been on similar earnings *trajectories* as non-movers before their moves, to have experienced substantial changes in their earnings levels at the time of their move, and to have then more or less followed the typical earnings trajectory of their new local labour markets.

With the longitudinally-based difference methodology now established and this set of baseline estimates in hand, future work might go in the following directions. First, it might be interesting to apply the basic model over a longer period of time, noting that some of the individuals classified as "movers" in the present study would eventually return to their original province or move on to another. (On the other hand, Finnie [1998a] reports the categorisation of individuals into stayers, single movers, multiple movers, and returners over the full 1982-95 period covered by the LAD data for individuals in the sample all years, and finds multiple movers to comprise only around 15% of all movers, with the single mover category focused on in this paper representing by far the greatest number of all movers over time).

Second, it would be interesting to look at other outcomes besides individuals' earnings, such as employment status or the receipt of unemployment insurance, social assistance, or other programme benefits.

A third direction would be to study the effects of mobility on families'—rather than individuals'—earnings/incomes, including perhaps testing the (traditional) "unitary" family model with respect to the benefits of moving, and so on.

Fourth, it would be interesting to look at the effects by *destination* province (as opposed to the province of origin), with related cross-tabulation working suggesting there are important differences along the lines one would expect (e.g., moving to a generally wealthier province is associated with greater earnings increases than moving to a poorer one).

Fifth, it would be natural to compare the male-female results by marital status. Although marital status is controlled for in the models presented above, the mobility effects themselves are not broken down along these lines. Do single women behave more like single men and do the significant gender differences occur only after marriage, or do the gender differences have an even more deeply rooted genesis?

Sixth, it would be a natural extension to look at other types of migration beside inter-provincial movements, including intra-provincial migration (from one locality to another), urban-rural migration, or, going the other way, inter-regional migration (thus implying some aggregation of the movements analysed here).

Finally, it might be interesting to focus on the effects of moving for certain specific groups, such as individuals of a given province (Quebec or one of the classically have-not provinces might be interesting cases in point), a particular age-sex group, or the members of a specific community or individuals of a particular economic status, such as those living in a particular city or region in decline, or individuals with some other particular type of income (e.g., fishers).

It is, therefore, hoped that the work reported here has made a contribution by establishing an appropriate methodology for investigating the effects of inter-provincial migration on individuals' earnings, by providing a set of benchmark estimates of these effects, and by offering a useful point of departure for further work in this area, including any which might be carried out with the LAD database employed here.

Table 1a: Mean Earnings in Year 1 and Year 3, All Groups

Province	Mean Earnings, Year 1			Mean Earnings, Year 3			Percentage Change		
	Stayers	Movers	Others	Stayers	Movers	Others	Stayers	Movers	Others
Nfld.	21,100	19,000	17,200	22,200	25,500	19,700	5.2	34.2	14.5
N.S.	24,800	23,400	22,600	25,800	29,200	24,600	4.0	24.8	8.8
P.E.I.	20,400	20,600	20,000	21,400	24,300	22,000	4.9	18.0	10.0
N.B.	22,900	24,000	21,600	23,900	28,800	23,700	4.4	20.0	9.7
Que.	27,500	27,100	26,100	28,600	32,200	28,600	4.0	18.8	9.6
Ont.	31,600	29,100	28,500	33,400	29,400	27,900	5.7	1.0	-2.1
Man.	26,800	28,100	27,100	28,000	28,200	26,500	4.5	0.4	-2.2
Sask.	25,700	23,700	22,600	26,500	29,100	24,300	3.1	22.8	7.5
Alta.	31,100	27,700	27,200	32,100	28,400	25,600	3.2	2.5	-5.9
B.C.	31,500	24,600	25,500	33,100	27,900	25,100	5.1	13.4	-1.6
Total	29,400	26,500	25,700	30,800	29,000	25,900	4.8	9.4	0.8

Table 1b: Mean Earnings in Year 1 and Year 3, by Gender

MALES

Province	Mean Earnings, Year 1			Mean Earnings, Year 3			Percentage Change		
	Stayers	Movers	Others	Stayers	Movers	Others	Stayers	Movers	Others
NFLD.	25,300	22,000	19,400	26,400	30,700	22,700	4.3	39.5	17.0
N.S.	29,900	28,600	29,100	30,800	35,800	31,700	3.0	25.2	8.9
P.E.I.	24,700	31,600	24,100	25,700	37,400	28,200	4.0	18.4	17.0
N.B.	27,600	27,900	25,300	28,600	33,500	28,600	3.6	20.1	13.0
QUE.	32,700	32,700	31,300	33,900	39,600	35,100	3.7	21.1	12.1
ONT.	38,800	35,000	34,400	40,700	35,800	34,600	4.9	2.3	0.6
MAN.	32,200	34,900	34,100	33,500	35,800	34,400	4.0	2.6	0.9
SASK.	31,100	28,900	28,100	31,800	36,400	31,200	2.3	26.0	11.0
ALTA.	38,400	34,100	33,800	39,400	35,900	33,000	2.6	5.3	-2.4
B.C.	39,000	29,500	31,600	40,500	33,500	32,600	3.8	13.6	3.2

FEMALES

Province	Mean Earnings, Year 1			Mean Earnings, Year 3			Percentage Change		
	Stayers	Movers	Others	Stayers	Movers	Others	Stayers	Movers	Others
NFLD.	15,700	14,900	13,500	16,700	18,100	14,400	6.4	21.5	6.7
N.S.	17,800	15,700	13,900	18,800	19,700	15,200	5.6	25.5	9.4
P.E.I.	15,300	14,900	14,200	16,300	17,400	13,300	6.5	16.8	-6.3
N.B.	16,600	16,800	14,800	17,600	20,200	14,800	6.0	20.2	0.0
QUE.	20,500	19,600	18,700	21,600	22,300	19,300	5.4	13.8	3.2
ONT.	22,800	20,100	19,900	24,500	19,600	18,000	7.5	-2.5	-9.5
MAN.	19,800	18,900	18,200	21,100	18,000	16,400	6.6	-4.8	-9.9
SASK.	19,000	16,400	16,000	19,900	19,200	16,100	4.7	17.1	0.6
ALTA.	22,100	18,700	18,700	23,100	17,700	16,000	4.5	-5.3	-14.4
B.C.	22,100	17,400	17,500	23,700	19,500	15,300	7.2	12.1	-12.6

Table 1c : Mean Earnings ($1995) in Year 1 and Year 3 by Mobility Status, Male

Age Group	Province	Mean Earnings, Year 1			Mean Earnings, Year 3			Percentage Change		
		Stayers	Movers	Others	Stayers	Movers	Others	Stayers	Movers	Others
ENTRY (20-24)	NFLD.	11,900	9,000	10,400	14,600	22,000	15,200	22.7	144.4	46.2
	N.S.	14,900	12,600	14,100	19,000	24,100	19,800	27.5	91.3	40.4
	P.E.I.	11,700	-	-	14,400	-	-	23.1	-	-
	N.B.	13,000	12,700	13,100	16,400	23,100	19,100	26.2	81.9	45.8
	QUE.	16,500	17,000	16,200	20,600	27,800	22,800	24.8	63.5	40.7
	ONT.	19,600	17,500	17,700	25,100	20,600	21,000	28.1	17.7	18.6
	MAN.	17,600	16,500	17,700	21,200	24,000	21,300	20.5	45.5	20.3
	SASK.	19,400	18,300	16,200	22,800	26,900	21,100	17.5	47.0	30.2
	ALTA.	21,200	18,500	20,800	24,800	23,200	20,300	17.0	25.4	-2.4
	B.C.	20,900	14,700	17,700	25,700	22,100	21,900	23.0	50.3	23.7
YOUNGER (25-34)	NFLD.	23,400	24,300	22,900	25,100	30,900	26,900	7.3	27.2	17.5
	N.S.	27,900	30,600	34,300	29,600	37,700	37,300	6.1	23.2	8.7
	P.E.I.	22,000	28,700	25,700	24,100	34,100	31,400	9.5	18.8	22.2
	N.B.	24,900	31,400	31,600	26,700	37,100	34,200	7.2	18.2	8.2
	QUE.	29,800	32,000	31,400	32,100	39,700	34,400	7.7	24.1	9.6
	ONT.	35,500	33,800	33,900	38,900	36,600	34,800	9.6	8.3	2.7
	MAN.	30,000	33,700	33,400	32,300	34,700	33,900	7.7	3.0	1.5
	SASK.	31,000	30,100	30,500	32,300	38,600	34,300	4.2	28.2	12.5
	ALTA.	35,900	33,600	34,400	38,200	35,700	34,500	6.4	6.3	0.3
	B.C.	35,300	30,000	33,100	38,400	34,600	33,800	8.8	15.3	2.1
PRIME-YOUNGER (35-44)	NFLD.	32,100	38,800	32,100	33,100	41,900	33,400	3.1	8.0	4.0
	N.S.	36,400	44,800	44,800	37,000	48,000	45,300	1.6	7.1	1.1
	P.E.I.	31,200	33,900	35,700	31,300	33,500	38,200	0.3	-1.2	7.0
	N.B.	34,400	40,500	39,300	34,900	44,000	41,400	1.5	8.6	5.3
	QUE.	39,400	45,100	46,000	40,300	48,800	50,700	2.3	8.2	10.2
	ONT.	46,400	48,500	49,100	47,900	47,500	47,500	3.2	-2.1	-3.3
	MAN.	38,200	46,700	44,700	39,100	45,500	45,100	2.4	-2.6	0.9
	SASK.	37,000	38,500	39,400	36,900	42,200	40,700	-0.3	9.6	3.3
	ALTA.	46,300	46,500	45,800	46,800	46,900	43,400	1.1	0.9	-5.2
	B.C.	45,400	42,000	43,200	46,700	43,900	42,800	2.9	4.5	-0.9
PRIME-OLDER (45-54)	NFLD.	31,900	50,500	54,500	31,400	48,100	45,400	-1.6	-4.8	-16.7
	N.S.	39,300	42,400	44,900	38,000	41,300	39,800	-3.3	-2.6	-11.4
	P.E.I.	32,900	-	-	32,600	-	-	-0.9	-	-
	N.B.	36,900	48,100	39,400	36,200	41,600	38,600	-1.9	-13.5	-2.0
	QUE.	41,100	61,200	58,600	40,300	63,900	58,100	-1.9	4.4	-0.9
	ONT.	48,300	61,400	57,300	48,000	52,200	53,100	-0.6	-15.0	-7.3
	MAN.	41,200	56,700	56,300	40,600	52,200	51,400	-1.5	-7.9	-8.7
	SASK.	36,100	45,600	42,400	35,300	48,500	39,200	-2.2	6.4	-7.5
	ALTA.	47,200	49,000	45,200	45,800	48,900	42,900	-3.0	-0.2	-5.1
	B.C.	46,900	39,800	46,100	46,200	40,200	43,500	-1.5	1.0	-5.6

Dashes (-) indicate there were no such observations.

Table 1c : Mean Earnings ($1995) in Year 1 and Year 3 by Mobility Status, Female

Age Group	Province	Mean Earnings, Year 1			Mean Earnings, Year 3			Percentage Change		
		Stayers	Movers	Others	Stayers	Movers	Others	Stayers	Movers	Others
ENTRY (20-24)	NFLD.	11,100	10,900	11,000	13,400	17,900	11,900	20.7	64.2	8.2
	N.S.	12,000	11,300	9,800	14,500	17,800	12,700	20.8	57.5	29.6
	P.E.I.	11,100	8,000	8,600	13,100	11,500	9,500	18.0	43.8	10.5
	N.B.	11,300	10,800	11,400	13,300	17,500	14,100	17.7	62.0	23.7
	QUE.	13,600	13,700	12,800	16,100	19,600	16,500	18.4	43.1	28.9
	ONT.	15,600	13,900	14,300	19,000	16,500	14,800	21.8	18.7	3.5
	MAN.	14,300	15,400	14,800	16,800	19,000	15,400	17.5	23.4	4.1
	SASK.	15,000	12,900	11,400	16,800	17,300	14,600	12.0	34.1	28.1
	ALTA.	16,500	13,800	14,300	18,700	15,700	13,600	13.3	13.8	-4.9
	B.C.	15,200	13,600	13,600	18,100	17,100	13,300	19.1	25.7	-2.2
YOUNGER (25-34)	NFLD.	16,700	16,800	15,700	17,700	18,400	15,300	6.0	9.5	-2.5
	N.S.	18,100	20,000	20,000	19,300	21,800	19,200	6.6	9.0	-4.0
	P.E.I.	15,400	15,900	19,800	16,400	16,500	14,500	6.5	3.8	-26.8
	N.B.	16,600	21,600	17,500	17,800	23,600	16,600	7.2	9.3	-5.1
	QUE.	20,800	22,700	21,200	22,000	25,300	21,800	5.8	11.5	2.8
	ONT.	23,100	22,800	22,700	25,000	21,600	19,900	8.2	-5.3	-12.3
	MAN.	20,200	21,000	21,300	21,500	18,700	18,200	6.4	-11.0	-14.6
	SASK.	20,200	18,800	20,000	21,200	20,200	18,300	5.0	7.4	-8.5
	ALTA.	22,800	21,300	21,000	23,700	19,200	17,500	3.9	-9.9	-16.7
	B.C.	21,500	20,200	20,600	23,100	21,700	17,000	7.4	7.4	-17.5
PRIME-YOUNGER (35-44)	NFLD.	17,800	14,500	15,000	18,800	16,800	14,300	5.6	15.9	-4.7
	N.S.	20,800	19,800	14,800	21,900	24,700	14,800	5.3	24.7	0.0
	P.E.I.	18,700	-	-	20,300	-	-	8.6	-	-
	N.B.	19,500	22,100	21,300	20,600	22,500	17,300	5.6	1.8	-18.8
	QUE.	23,700	23,900	22,600	24,800	23,300	19,800	4.6	-2.5	-12.4
	ONT.	25,800	24,300	25,400	27,700	22,200	22,800	7.4	-8.6	-10.2
	MAN.	22,900	19,600	19,900	24,500	16,300	16,200	7.0	-16.8	-18.6
	SASK.	20,600	19,200	18,600	21,700	23,100	16,600	5.3	20.3	-10.8
	ALTA.	24,600	20,900	20,000	25,800	18,200	17,900	4.9	-12.9	-10.5
	B.C.	25,100	21,000	19,400	27,200	22,200	16,800	8.4	5.7	-13.4
PRIME-OLDER (45-54)	NFLD.	17,400	-	-	16,900	-	-	-2.9	-	-
	N.S.	21,000	-	-	20,900	-	-	-0.5	-	-
	P.E.I.	17,400	-	-	16,900	-	-	-2.9	-	-
	N.B.	19,200	-	-	19,000	-	-	-1.0	-	-
	QUE.	23,100	20,600	24,800	23,100	23,300	22,600	0.0	13.1	-8.9
	ONT.	25,900	25,500	19,500	26,500	20,200	15,700	2.3	-20.8	-19.5
	MAN.	22,500	23,600	21,200	22,700	18,800	16,000	0.9	-20.3	-24.5
	SASK.	20,600	27,200	20,400	20,600	21,400	16,400	0.0	-21.3	-19.6
	ALTA.	24,200	21,000	23,500	24,200	17,100	15,800	0.0	-18.6	-32.8
	B.C.	25,200	23,100	23,600	25,800	22,300	17,900	2.4	-3.5	-24.2

Dashes (-) indicates there were no such observations.

Table 2a : Level Equations, Male

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime -Older (45-54)	
Intercept	2.642 **	(.922)	8.002 **	(.211)	8.337 **	(.406)	5.862 **	(.849)
Province (ONT)								
NFLD.	-.838 **	(.023)	-.601 **	(.013)	-.521 **	(.014)	-.606 **	(.019)
N.S.	-.297 **	(.017)	-.300 **	(.010)	-.296 **	(.011)	-.234 **	(.015)
P.E.I.	-.561 **	(.048)	-.583 **	(.027)	-.560 **	(.028)	-.496 **	(.037)
N.B.	-.439 **	(.020)	-.442 **	(.012)	-.340 **	(.012)	-.338 **	(.017)
QUE.	-.188 **	(.008)	-.207 **	(.005)	-.179 **	(.005)	-.190 **	(.007)
MAN.	-.158 **	(.017)	-.193 **	(.009)	-.199 **	(.010)	-.175 **	(.013)
SASK.	-.094 **	(.018)	-.226 **	(.010)	-.318 **	(.011)	-.406 **	(.015)
ALTA.	-.011	(.012)	-.026 **	(.006)	-.046 **	(.007)	-.091 **	(.010)
B.C.	.026 *	(.012)	-.007	(.006)	-.022 **	(.006)	-.039 **	(.008)
Mobility Status (stayers)								
NFLD/Movers	.628 **	(.097)	.423 **	(.082)	.353 **	(.130)	.673 **	(.200)
NS/Movers	.364 **	(.077)	.261 **	(.056)	.232 **	(.076)	.156	(.169)
PEI/Movers	.740 **	(.286)	.575 **	(.178)	.598 **	(.210)	.840	(.447)
NB/Movers	.290 **	(.098)	.458 **	(.067)	.105	(.097)	-.051	(.192)
QUE/Movers	.380 **	(.068)	.282 **	(.072)	-.100	(.099)	.398	(.205)
ONT/Movers	-.279 **	(.048)	-.159 **	(.030)	-.168 **	(.044)	-.199 **	(.077)
MAN/Movers	.152	(.082)	.064	(.049)	.146 *	(.072)	.233 *	(.116)
SASK/Movers	.163 *	(.076)	.225 **	(.053)	.157	(.084)	.300 *	(.126)
ALTA/Movers	-.158 **	(.052)	-.154 **	(.031)	-.021	(.047)	.011	(.082)
BC/Movers	-.182 **	(.061)	-.141 **	(.041)	-.157 **	(.057)	-.229 *	(.109)
Maritime/Returners	-.158	(.107)	-.279 **	(.102)	-.137	(.156)	.272	(.282)
QUE/Returners	.410 *	(.200)	-.297	(.177)	-.208	(.255)	.050	(.446)
ONT/Returners	-.551 **	(.113)	-.402 **	(.083)	-.482 **	(.133)	-.047	(.195)
MAN/Returners	-.093	(.185)	-.465 *	(.186)	-.330	(.202)	-.212	(.364)
SASK/Returners	.033	(.195)	-.326 *	(.155)	-.361	(.243)	.796	(.515)
ALTA/Returners	-.373 **	(.120)	-.481 **	(.107)	-.514 **	(.138)	.061	(.297)
BC/Returners	-.075	(.150)	-.478 **	(.102)	-.513 **	(.172)	-.452 *	(.230)
Min. Language (ENG/FR)								
English-Quebec	-.063 **	(.021)	.042 **	(.012)	.098 **	(.012)	.111 **	(.015)
French-ROC	-.062 *	(.031)	-.060 **	(.019)	-.147 **	(.022)	-.236 **	(.031)
Eng-Qua/Movers	-.099	(.131)	-.102	(.092)	.369 **	(.128)	-.087	(.244)
Fr-ROC/Movers	.333 **	(.122)	.152 *	(.078)	.155	(.130)	.117	(.248)
Eng-Qua/Returners	-.460	(.346)	-.288	(.288)	-1.112 **	(.416)	.281	(.772)
Fr-ROC/Returners	.535	(.604)	.514 *	(.272)	-.408	(.477)	-.386	(.913)
Personal Characteristics (single, no children)								
Married, no children	.257 **	(.010)	.267 **	(.005)	.232 **	(.006)	.226 **	(.010)
Married with children	.009	(.002)	.196 **	(.004)	.309 **	(.006)	.326 **	(.008)
Lone parent	-.101 **	(.013)	-.071 **	(.010)	.044 **	(.006)	.124 **	(.016)
Age	.550 **	(.084)	.118 **	(.014)	.094 **	(.021)	.204 **	(.034)
Age squared	-.0100 **	(.0019)	-.0014 **	(.0002)	-.0011 **	(.0002)	-.0021 **	(.0003)
Year (1984)								
1985	-.001	(.014)	.005	(.009)	.024 *	(.010)	.014	(.013)
1986	.003	(.014)	-.009	(.009)	.019	(.010)	.029 *	(.013)
1987	.014	(.014)	.007	(.009)	.040 **	(.010)	.057 **	(.013)
1988	.010	(.014)	.020 *	(.009)	.054 **	(.010)	.082 **	(.013)
1989	.018	(.015)	.007	(.009)	.050 **	(.010)	.083 **	(.013)
1990	-.009	(.014)	-.031 **	(.009)	.009	(.010)	.061 **	(.013)
1991	-.147 **	(.015)	-.124 **	(.009)	-.048 **	(.010)	.014	(.013)
1992	-.202 **	(.016)	-.136 **	(.009)	-.057 **	(.010)	.008	(.013)
1993	-.213 **	(.016)	-.137 **	(.009)	-.089 **	(.010)	-.001	(.012)
1994	-.175 **	(.016)	-.100 **	(.009)	-.038 **	(.009)	.025 *	(.012)
1995	-.201 **	(.016)	-.120 **	(.009)	-.046 **	(.009)	.046 **	(.012)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Table 2b : Level Equations, Female

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	-.510	(1.043)	9.314 **	(.280)	8.772 **	(.525)	6.370 **	(1.083)
Province (ONT)								
NFLD.	-.473 **	(.025)	-.426 **	(.018)	-.541 **	(.018)	-.578 **	(.025)
N.S.	-.295 **	(.020)	-.276 **	(.014)	-.302 **	(.015)	-.278 **	(.020)
P.E.I.	-.341 **	(.048)	-.425 **	(.034)	-.328 **	(.036)	-.485 **	(.049)
N.B.	-.377 **	(.023)	-.387 **	(.016)	-.347 **	(.017)	-.350 **	(.021)
QUE.	-.209 **	(.010)	-.136 **	(.006)	-.139 **	(.007)	-.200 **	(.009)
MAN.	-.133 **	(.019)	-.147 **	(.012)	-.095 **	(.013)	-.123 **	(.017)
SASK.	-.148 **	(.021)	-.152 **	(.013)	-.227 **	(.014)	-.258 **	(.018)
ALTA.	-.042 **	(.013)	-.072 **	(.008)	-.057 **	(.009)	-.075 **	(.012)
B.C.	-.056 **	(.013)	-.115 **	(.008)	-.033 **	(.008)	-.025 *	(.011)
Mobility Status (stayers)								
NFLD/Movers	.593 **	(.122)	.128	(.116)	-.334 *	(.168)	.443	(.270)
NS/Movers	.182	(.087)	-.023	(.084)	-.112	(.121)	.143	(.257)
PEI/Movers	-.056	(.219)	-.071	(.189)	-.093	(.261)	.139	(.681)
NB/Movers	.200	(.135)	.048	(.108)	.082	(.159)	-.362	(.290)
QUE/Movers	.021	(.108)	.035	(.105)	-.332 *	(.134)	.186	(.430)
ONT/Movers	-.293 **	(.056)	-.306 **	(.046)	-.557 **	(.067)	-.560 **	(.105)
MAN/Movers	.064	(.087)	-.370 **	(.073)	-.559 **	(.095)	-.503 **	(.188)
SASK/Movers	.009	(.086)	-.284 **	(.081)	-.127	(.105)	-.489 *	(.210)
ALTA/Movers	-.210 **	(.080)	-.317 **	(.045)	-.492 **	(.070)	-.351 **	(.119)
BC/Movers	-.073	(.068)	-.132 *	(.062)	-.379 **	(.085)	-.379 *	(.165)
Maritime/Returners	-.261	(.141)	-.357 *	(.145)	-.738 **	(.203)	-.539	(.430)
QUE/Returners	-.254	(.208)	-.060	(.300)	-.886 **	(.294)	.239	(.960)
ONT/Returners	-.505 **	(.147)	-.661 **	(.134)	-.507 **	(.178)	-.764 *	(.304)
MAN/Returners	-.479	(.252)	-.370	(.230)	-1.548 **	(.417)	-.606	(.679)
SASK/Returners	-.599 *	(.235)	-.312	(.237)	-.683 *	(.380)	-1.017 *	(.481)
ALTA/Returners	-.392 **	(.137)	-.582 **	(.144)	-.396 *	(.208)	-1.087 **	(.304)
BC/Returners	-.547 **	(.159)	-.761 **	(.159)	-.937 **	(.203)	-.514 **	(.430)
Mtn. Language (ENG/FR)								
English-Quebec	.175 **	(.022)	.050 **	(.015)	.077 **	(.015)	.170 **	(.018)
French-ROC	.025	(.038)	-.012	(.025)	-.032	(.027)	.033	(.036)
Eng-Que/Mover	.073	(.153)	-.105	(.135)	.150	(.176)	-.507	(.467)
Fr-ROC/Mover	.274 *	(.153)	.234 **	(.114)	.338 *	(.170)	-1.549 **	(.442)
Eng-Que/Returner	.107	(.426)	-.470	(.424)	.342	(.459)	1.143	(1.358)
Fr-ROC/Returner	.232	(.419)	.579	(.480)	-1.406	(.948)	1.257	(1.008)
Personal Characteristics (single, no children)								
Married, no children	-.081 **	(.010)	-.080 **	(.007)	-.122 **	(.011)	-.215 **	(.011)
Married with children	-.188 **	(.008)	-.432 **	(.006)	-.342 **	(.008)	-.231 **	(.010)
Lone parent	-.294 **	(.014)	-.392 **	(.010)	-.221 **	(.010)	-.086 **	(.013)
Age	.838 **	(.095)	.025	(.019)	.167 **	(.027)	.171 **	(.044)
Age squared	-.0169 **	(.0021)	.0001	(.0003)	-.0021 **	(.0003)	-.0020 **	(.0004)
Year (1984)								
1985	-.030	(.016)	.008	(.012)	.023	(.014)	.015	(.018)
1986	-.034 *	(.016)	-.011	(.012)	.052 **	(.014)	.024	(.018)
1987	-.017	(.016)	.006	(.012)	.070 **	(.013)	.044 *	(.017)
1988	-.033 *	(.016)	.007	(.012)	.110 **	(.013)	.094 **	(.017)
1989	-.018	(.016)	.001	(.012)	.116 **	(.013)	.099 **	(.017)
1990	-.005	(.016)	.002	(.012)	.143 **	(.013)	.096 **	(.017)
1991	-.097 **	(.017)	-.027 *	(.012)	.124 **	(.013)	.078 **	(.017)
1992	-.152 **	(.018)	-.041 **	(.012)	.136 **	(.013)	.108 **	(.016)
1993	-.157 **	(.018)	-.039 **	(.012)	.121 **	(.013)	.121 **	(.016)
1994	-.149 **	(.018)	-.018	(.012)	.150 **	(.013)	.150 **	(.016)
1995	-.222 **	(.018)	-.027 *	(.012)	.152 **	(.013)	.170 **	(.016)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Table 3a : Fixed Effects, Male

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	2.371 *	(.948)	1.592 **	(.188)	.130	(.321)	-2.167 **	(.649)
Province (ONT)								
NFLD.	-.102 **	(.023)	-.012	(.012)	-.001	(.011)	-.021	(.015)
N.S.	-.012	(.018)	-.023 *	(.009)	-.018 *	(.009)	-.043 **	(.011)
P.E.I.	-.072	(.048)	.014	(.024)	-.047 *	(.022)	.012	(.028)
N.B.	-.024	(.020)	-.016	(.010)	-.010	(.010)	-.014	(.013)
QUE.	-.027 **	(.009)	-.018 **	(.004)	-.008 *	(.004)	-.020 **	(.005)
MAN.	-.083 **	(.017)	-.009	(.008)	-.006	(.008)	-.010	(.010)
SASK.	-.119 **	(.018)	-.045 **	(.009)	-.044 **	(.009)	-.039 **	(.011)
ALTA.	-.108 **	(.012)	-.026 **	(.006)	-.021 **	(.005)	-.022 **	(.007)
B.C.	-.021	(.012)	.010	(.006)	.001	(.005)	.002	(.006)
Mobility Status (stayers)								
NFLD/Movers	.883 **	(.100)	.371 **	(.072)	.383 **	(.102)	.092	(.153)
NS/Movers	.545 **	(.079)	.137 **	(.050)	.079	(.060)	.014	(.129)
PEI/Movers	.504	(.294)	.323 *	(.159)	-.038	(.166)	.282	(.342)
NB/Movers	.466 **	(.101)	.181 **	(.060)	.023	(.076)	-.270	(.147)
QUE/Movers	.439 **	(.091)	.283 **	(.084)	.067	(.078)	-.073	(.145)
ONT/Movers	-.150 **	(.049)	-.025	(.027)	-.187 **	(.035)	-.349 **	(.059)
MAN/Movers	.347 **	(.084)	-.041	(.043)	-.053	(.057)	-.085	(.088)
SASK/Movers	.288 **	(.078)	.236 **	(.047)	.148 *	(.067)	.191 *	(.096)
ALTA/Movers	.030	(.054)	-.046	(.027)	.011	(.037)	-.058	(.063)
BC/Movers	.159 *	(.062)	.112 **	(.036)	.069 *	(.045)	.024	(.083)
Maritime/Returners	.068	(.110)	-.170	(.091)	.151	(.123)	.221	(.216)
QUE/Returners	.033	(.205)	-.059	(.157)	-.175	(.201)	-.432	(.341)
ONT/Returners	-.263 *	(.116)	-.076	(.074)	-.269 *	(.105)	-.001	(.149)
MAN/Returners	.136	(.190)	-.262	(.166)	.235	(.159)	-.759 **	(.278)
SASK/Returners	.000	(.200)	.107	(.138)	-.103	(.192)	.494	(.393)
ALTA/Returners	-.220	(.123)	-.156	(.095)	-.213	(.109)	.007	(.227)
BC/Returners	.025	(.154)	-.004	(.091)	-.002	(.136)	.274	(.176)
Mln. Language (ENG/FR)								
English-Quebec	-.017	(.021)	.035 **	(.010)	.009	(.009)	.007	(.012)
French-ROC	-.009	(.032)	.013	(.017)	-.015	(.017)	-.016	(.024)
Eng-Que/Movers	-.179	(.135)	-.101	(.082)	.009	(.101)	-.137	(.190)
Fr-ROC/Movers	.093	(.125)	.030	(.069)	-.105	(.103)	-.033	(.196)
Eng-Que/Returners	.061	(.335)	-.472 *	(.256)	-.210	(.329)	.115	(.590)
Fr-ROC/Returners	2.403 **	(.621)	.368	(.242)	-.123	(.377)	-1.642 *	(.697)
Personal Characteristics (single, no children)								
Married, no children	-.034 **	(.010)	.003	(.005)	.011 *	(.006)	.001	(.007)
Married with children	.037 **	(.007)	-.026 **	(.004)	-.004	(.004)	.018 **	(.006)
Lone parent	.020	(.013)	-.034 **	(.009)	-.024 **	(.009)	-.011	(.012)
Age	-.152 *	(.066)	-.091 **	(.013)	-.001	(.016)	.098 **	(.026)
Age squared	.0025	(.0020)	.0013 **	(.0002)	-.0001	(.0002)	-.0014 **	(.0003)
Year (1984)								
1985	.083 **	(.015)	.053 **	(.008)	.035 **	(.008)	.031 **	(.010)
1986	.076 **	(.015)	.024 **	(.008)	.017 *	(.008)	.033 **	(.010)
1987	.100 **	(.015)	.034 **	(.008)	.014	(.008)	.038 **	(.010)
1988	.125 **	(.015)	.061 **	(.008)	.040 **	(.008)	.055 **	(.010)
1989	.087 **	(.015)	.044 **	(.008)	.016 *	(.008)	.023 *	(.010)
1990	.016	(.015)	-.018 *	(.008)	-.046 **	(.008)	-.029 **	(.010)
1991	-.179 **	(.016)	-.119 **	(.008)	-.108 **	(.008)	-.093 **	(.010)
1992	-.175 **	(.016)	-.115 **	(.008)	-.084 **	(.008)	-.092 **	(.010)
1993	-.042 *	(.016)	-.031 **	(.008)	-.039 **	(.008)	-.046 **	(.010)
1994	.082 **	(.017)	.047 **	(.008)	.014	(.007)	-.004	(.009)
1995	.119 **	(.017)	.056 **	(.008)	.035 **	(.007)	.034 **	(.009)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Table 3b : Fixed Effects, Female

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	.706	(1.065)	1.425 **	(.261)	-1.055 *	(.439)	-1.130	(.837)
Province (ONT)								
NFLD.	-.065 *	(.026)	-.055 **	(.017)	-.061 **	(.015)	-.076 **	(.020)
N.S.	-.001	(.021)	-.005	(.013)	-.028 *	(.012)	-.033 *	(.016)
P.E.I.	-.104 *	(.049)	-.003	(.032)	.050	(.030)	-.046	(.038)
N.B.	-.045	(.024)	-.039 **	(.015)	-.012	(.014)	-.019	(.016)
QUE.	-.042 **	(.010)	-.019 **	(.006)	-.031 **	(.005)	-.021 **	(.007)
MAN.	-.049 **	(.019)	-.016	(.012)	.007	(.011)	.006	(.013)
SASK.	-.104 **	(.021)	-.032 **	(.012)	-.013	(.012)	-.025	(.014)
ALTA.	-.079 **	(.013)	-.031 **	(.008)	-.011	(.007)	-.021 *	(.009)
B.C.	-.019	(.013)	.016 *	(.008)	.024 **	(.007)	.012	(.008)
Mobility Status (stayers)								
NFLD/Movers	.506 **	(.124)	.220 *	(.109)	-.036	(.141)	-.183	(.208)
NS/Movers	.314 **	(.089)	-.063	(.078)	.005	(.101)	.135	(.199)
PEI/Movers	.403	(.224)	-.280	(.177)	.265	(.218)	1.360 **	(.526)
NB/Movers	.302 *	(.138)	-.071	(.100)	-.021	(.133)	.337	(.224)
QUE/Movers	.085	(.110)	.106	(.099)	-.318 **	(.113)	.437	(.332)
ONT/Movers	-.084	(.057)	-.152 **	(.043)	-.290 **	(.056)	-.387 **	(.081)
MAN/Movers	.158	(.089)	-.305 **	(.068)	-.348 **	(.080)	-.453 **	(.130)
SASK/Movers	.130	(.088)	-.027	(.076)	.076	(.088)	-.721 **	(.163)
ALTA/Movers	-.015	(.062)	-.180 **	(.042)	-.198 **	(.059)	-.185 *	(.092)
BC/Movers	.032	(.089)	.023	(.058)	-.033	(.071)	.008	(.128)
Maritime/Returners	.030	(.144)	-.135	(.136)	-.130	(.170)	.213	(.332)
QUE/Returners	-.206	(.213)	.049	(.280)	-.835 **	(.246)	-.182	(.742)
ONT/Returners	-.266	(.150)	-.532 **	(.126)	-.464 **	(.147)	-.183	(.235)
MAN/Returners	-.322	(.258)	-.254	(.215)	-1.433 **	(.349)	-.258	(.525)
SASK/Returners	-.336	(.240)	.143	(.222)	.066	(.318)	-.914 *	(.371)
ALTA/Returners	-.134	(.140)	-.208	(.134)	.298	(.174)	-.970 **	(.235)
BC/Returners	-.303	(.162)	-.765 **	(.148)	-.394 *	(.170)	-.589	(.332)
Min. Language (ENG/FR)								
English-Quebec	.063 **	(.023)	-.027	(.014)	.009	(.013)	.004	(.014)
French-ROC	.026	(.039)	.007	(.024)	-.009	(.022)	.008	(.027)
Eng-Que/Movers	.165	(.157)	-.072	(.126)	.338 *	(.147)	-.383	(.381)
Fr-ROC/Movers	.060	(.156)	.167	(.107)	.193	(.143)	-.621 *	(.342)
Eng-Que/Returners	.871 *	(.435)	-.867 *	(.396)	.447	(.384)	-.348	(1.050)
Fr-ROC/Returners	.201	(.428)	.606	(.449)	-.437	(.793)	1.419 *	(.779)
Personal Characteristics (single, no children)								
Married, no children	-.181 **	(.010)	-.015 **	(.007)	-.022 *	(.009)	-.012	(.008)
Married with children	.099 **	(.009)	.076 **	(.006)	.091 **	(.007)	.023 **	(.007)
Lone parent	.065 **	(.014)	.057 **	(.009)	.047 **	(.008)	.012	(.010)
Age	-.003	(.097)	-.096 **	(.018)	.082 **	(.022)	.059 *	(.034)
Age squared	-.0010	(.0022)	.0017 **	(.0003)	-.0009 **	(.0003)	-.0007 *	(.0003)
Year (1984)								
1985	.043 **	(.016)	.031 **	(.011)	.038 **	(.012)	.035 **	(.014)
1986	.072 **	(.016)	.029 **	(.011)	.057 **	(.011)	.021	(.014)
1987	.119 **	(.016)	.050 **	(.011)	.062 **	(.011)	.026	(.013)
1988	.115 **	(.016)	.055 **	(.011)	.068 **	(.011)	.060 **	(.013)
1989	.137 **	(.017)	.047 **	(.011)	.084 **	(.011)	.045 **	(.013)
1990	.102 **	(.017)	.026 *	(.011)	.060 **	(.011)	.000	(.013)
1991	-.011	(.017)	-.036 **	(.011)	-.004	(.011)	-.048 **	(.013)
1992	-.054 **	(.018)	-.054 **	(.011)	-.020	(.011)	-.048 **	(.013)
1993	.001	(.018)	-.025 *	(.011)	-.014	(.011)	-.037 **	(.013)
1994	.065 **	(.019)	.003	(.011)	-.006	(.011)	-.040 **	(.012)
1995	.059 **	(.019)	.017	(.011)	.015	(.011)	-.014	(.012)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Table 4a : Pre-Move Earnings Profiles, Male

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	3.126 **	(1.031)	1.461 **	(.196)	-.234	(.334)	-.045	(.649)
Province (ONT)								
NFLD.	-.083 **	(.025)	-.038 **	(.012)	-.010	(.012)	-.029 *	(.015)
N.S.	-.010	(.019)	-.031 **	(.009)	-.016	(.009)	-.029 *	(.011)
P.E.I.	-.060	(.051)	-.011	(.024)	-.055 *	(.023)	-.017	(.028)
N.B.	-.048 *	(.022)	-.027 *	(.011)	-.019	(.010)	-.017	(.013)
QUE.	-.031 **	(.009)	-.021 **	(.004)	-.015 **	(.004)	-.016 **	(.005)
MAN.	-.082 **	(.018)	-.026 **	(.009)	-.018 *	(.008)	-.027 **	(.010)
SASK.	-.150 **	(.019)	-.066 **	(.009)	-.049 **	(.009)	-.052 **	(.011)
ALTA.	-.131 **	(.013)	-.036 **	(.006)	-.033 **	(.006)	-.033 **	(.007)
B.C.	-.015	(.014)	.011	(.006)	-.001	(.005)	-.003	(.006)
Mobility Status (stayers)								
NFLD/Pre-Move	-.093	(.158)	.004	(.100)	-.106	(.148)	.053	(.175)
NS/Pre-Move	-.237 *	(.103)	.021	(.068)	-.073	(.079)	-.133	(.155)
PEI/Pre-Move	-.716	(.410)	-.192	(.242)	.084	(.234)	-.022	(.580)
NB/Pre-Move	.106	(.141)	.059	(.060)	-.052	(.094)	-.027	(.161)
QUE/Pre-Move	-.016	(.096)	-.009	(.054)	-.109	(.061)	-.307 **	(.101)
ONT/Pre-Move	-.062	(.072)	-.073 *	(.033)	-.015	(.044)	-.019	(.072)
MAN/Pre-Move	-.214 *	(.108)	.085	(.057)	-.003	(.070)	-.018	(.104)
SASK/Pre-Move	-.001	(.114)	.011	(.062)	-.019	(.080)	-.371 **	(.119)
ALTA/Pre-Move	-.130	(.081)	-.043	(.036)	-.045	(.046)	.049	(.078)
BC/Pre-Move	-.008	(.100)	-.129 *	(.050)	.008	(.068)	-.188	(.110)
NFLD/Movers	.684 **	(.108)	.397 **	(.079)	.084	(.105)	.040	(.148)
NS/Movers	.519 **	(.092)	.169 **	(.052)	.144 *	(.062)	-.139	(.130)
PEI/Movers	.784	(.411)	.507 **	(.188)	-.059	(.154)	.284	(.291)
NB/Movers	.534 **	(.105)	.142 *	(.062)	.056	(.080)	-.003	(.158)
QUE/Movers	.551 **	(.095)	.269 **	(.064)	.041	(.089)	.187	(.155)
ONT/Movers	-.175 **	(.056)	-.078 **	(.029)	-.149 **	(.037)	-.328 **	(.061)
MAN/Movers	.317 **	(.096)	-.040	(.046)	-.059	(.056)	-.013	(.094)
SASK/Movers	.279 **	(.083)	.246 **	(.048)	.076	(.068)	.308 **	(.096)
ALTA/Movers	.071	(.059)	-.048	(.028)	.048	(.039)	-.085	(.062)
BC/Movers	.174 *	(.070)	.108 **	(.039)	.082	(.047)	.096	(.085)
Maritime/Returners	.098	(.128)	-.155	(.102)	.163	(.139)	.238	(.219)
QUE/Returners	.120	(.217)	.230	(.170)	.188	(.216)	.047	(.334)
ONT/Returners	-.339 *	(.138)	-.049	(.080)	-.242 *	(.116)	-.160	(.155)
MAN/Returners	-.047	(.211)	-.376	(.212)	.179	(.158)	-.170	(.335)
SASK/Returners	.052	(.258)	.195	(.150)	-.172	(.190)	.111	(.410)
ALTA/Returners	-.341 *	(.140)	-.061	(.106)	-.275 *	(.110)	.056	(.219)
BC/Returners	-.084	(.174)	-.109	(.101)	-.129	(.143)	.473 **	(.175)
Min. Language (ENG/FR)								
English-Quebec	-.022	(.024)	.045 **	(.011)	.014	(.010)	.006	(.012)
French-ROC	-.027	(.034)	.001	(.017)	-.014	(.018)	-.034	(.024)
Eng-Que/Movers	-.230	(.145)	-.134	(.084)	.000	(.113)	-.045	(.183)
Fr-ROC/Movers	.010	(.139)	.132	(.071)	-.061	(.135)	-.021	(.191)
Eng-Que/Returners	.157	(.377)	-.518	(.361)	-.173	(.394)	-.394	(.529)
Fr-ROC/Returners	.192	(.824)	.196	(.274)	.443	(.567)	-1.497 *	(.600)
Personal Characteristics (single, no children)								
Married, no children	-.054 **	(.011)	-.004	(.005)	.004	(.007)	-.006	(.008)
Married with children	.020 *	(.008)	-.037 **	(.004)	-.017 **	(.005)	-.004	(.007)
Lone parent	.013	(.014)	-.035 **	(.009)	-.028 **	(.010)	-.003	(.013)
Age	-.216 *	(.094)	-.081 **	(.013)	.019	(.017)	.009	(.026)
Age squared	.0040	(.0021)	.0012 **	(.0002)	-.0003	(.0002)	-.0002	(.0003)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Table 4b : Pre-Move Earnings Profiles, Female

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	1.996	(1.132)	1.121 **	(.277)	-.683	(.472)	.042	(.855)
Province (ONT)								
NFLD.	-.104 **	(.026)	-.063 **	(.016)	-.079 **	(.016)	-.043 *	(.020)
N.S.	.012	(.022)	-.009	(.014)	-.029 *	(.013)	-.033 *	(.016)
P.E.I.	-.138 **	(.051)	-.039	(.034)	.071 *	(.032)	-.018	(.038)
N.B.	-.048	(.025)	-.033 *	(.016)	-.024	(.015)	-.037 *	(.016)
QUE.	-.025 *	(.010)	-.028 **	(.006)	-.030 **	(.006)	-.024 **	(.007)
MAN.	-.036	(.020)	-.031 *	(.012)	-.001	(.011)	-.006	(.013)
SASK.	-.135 **	(.023)	-.051 **	(.013)	-.012	(.013)	-.066 **	(.014)
ALTA.	-.082 **	(.014)	-.038 **	(.008)	-.029 **	(.008)	-.030 **	(.010)
B.C.	-.031 *	(.015)	.015	(.008)	.016 *	(.007)	.004	(.009)
Mobility Status (stayers)								
NFLD/Pre-Move	.263	(.170)	.148	(.171)	.122	(.159)	.137	(.362)
NS/Pre-Move	-.084	(.126)	-.014	(.110)	.053	(.145)	.039	(.314)
PEI/Pre-Move	.256	(.379)	-.032	(.268)	-.261	(.501)	-	-
NB/Pre-Move	-.012	(.199)	.193	(.130)	.066	(.214)	-.157	(.443)
QUE/Pre-Move	.126	(.102)	.072	(.065)	.003	(.097)	.015	(.157)
ONT/Pre-Move	.108	(.078)	.046	(.054)	.037	(.075)	-.134	(.096)
MAN/Pre-Move	-.107	(.117)	.070	(.088)	.147	(.105)	-.222	(.157)
SASK/Pre-Move	.125	(.114)	.060	(.091)	.068	(.109)	.053	(.189)
ALTA/Pre-Move	.086	(.088)	-.009	(.054)	-.115	(.083)	-.025	(.103)
BC/Pre-Move	.125	(.108)	.039	(.081)	.276 **	(.104)	.273	(.198)
NFLD/Movers	.306 *	(.143)	.216	(.119)	.398 *	(.167)	-.173	(.203)
NS/Movers	.324 **	(.097)	.006	(.083)	.044	(.111)	.152	(.199)
PEI/Movers	.347	(.248)	-.282	(.182)	.478	(.269)	1.194	(.826)
NB/Movers	.595 **	(.151)	-.217 *	(.104)	.071	(.140)	.486 *	(.222)
QUE/Movers	.167	(.122)	.364 **	(.105)	-.546 **	(.115)	.437	(.313)
ONT/Movers	-.071	(.092)	-.124 **	(.047)	-.226 **	(.062)	-.189 *	(.082)
MAN/Movers	.132	(.095)	-.310 **	(.071)	-.302 **	(.084)	-.482 **	(.141)
SASK/Movers	.095	(.094)	-.011	(.062)	.039	(.098)	-.744 **	(.181)
ALTA/Movers	-.031	(.067)	-.169 **	(.045)	-.076	(.064)	-.161	(.095)
BC/Movers	.152 *	(.075)	.004	(.059)	-.108	(.078)	-.083	(.131)
Maritime/Returners	.025	(.182)	-.109	(.142)	-.089	(.189)	.418	(.382)
QUE/Returners	-.124	(.225)	.039	(.326)	-.892 *	(.289)	-.258	(.626)
ONT/Returners	-.108	(.168)	-.362 **	(.134)	-.438 **	(.162)	-.308	(.209)
MAN/Returners	-.212	(.281)	-.249	(.214)	-1.893 **	(.408)	-.389	(.627)
SASK/Returners	-.080	(.281)	.181	(.266)	.012	(.354)	-1.583 **	(.443)
ALTA/Returners	-.093	(.157)	-.099	(.141)	.159	(.183)	-1.164 **	(.313)
BC/Returners	-.092	(.193)	-.812 **	(.190)	-.837 **	(.204)	.088	(.362)
Min. Language (ENG/FR)								
English-Quebec	.054 *	(.025)	-.012	(.015)	.007	(.013)	.004	(.014)
French-ROC	-.023	(.040)	-.003	(.025)	-.021	(.024)	.027	(.028)
Eng-Que/Movers	-.026	(.170)	-.295 *	(.132)	.677 **	(.152)	-.385	(.341)
Fr-ROC/Movers	.019	(.151)	.056	(.109)	.087	(.162)	-.236	(.373)
Eng-Que/Returners	1.233 **	(.477)	-.803	(.444)	.438	(.578)	-.328	(.886)
Fr-ROC/Returners	.035	(.858)	.577	(.470)	-	-	1.457 *	(.661)
Personal Characteristics (single, no children)								
Married, no children	-.155 **	(.011)	-.115 **	(.007)	-.016	(.010)	.004	(.008)
Married with children	.114 **	(.010)	.103 **	(.006)	.098 **	(.007)	.031 **	(.008)
Lone parent	.080 **	(.015)	.090 **	(.009)	.045 **	(.009)	.016	(.011)
Age	-.115	(.103)	-.072 **	(.019)	.044	(.024)	.008	(.035)
Age squared	.0015	(.0023)	.0012 **	(.0003)	-.0007 *	(.0003)	-.0002	(.0004)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Dashes (-) indicate there were no such observations.

Table 5a : Post-Move Earnings Profiles, Starting the First Year in the New Province, Male

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	1.008	(1.186)	1.480 **	(.208)	.108	(.338)	-2.470 **	(.705)
Province (ONT)								
NFLD.	-.068 *	(.029)	.025 *	(.013)	.005	(.012)	.003	(.016)
N.S.	.031	(.021)	-.010	(.010)	-.012	(.009)	-.036 **	(.012)
P.E.I.	-.052	(.056)	.044	(.025)	-.045 *	(.023)	.015	(.030)
N.B.	.015	(.024)	.030 **	(.011)	.001	(.010)	.010	(.014)
QUE.	-.011	(.011)	-.007	(.004)	-.002	(.004)	-.015 **	(.006)
MAN.	-.049 *	(.021)	.008	(.009)	.005	(.008)	-.004	(.011)
SASK.	-.082 **	(.022)	-.014	(.009)	-.015	(.009)	-.011	(.013)
ALTA.	-.039 *	(.015)	-.002	(.006)	-.003	(.006)	.006	(.008)
B.C.	.019	(.016)	.025 **	(.006)	.017 **	(.005)	.024 **	(.007)
Mobility Status (stayers)								
NFLD/Post-Move	.180	(.165)	.075	(.090)	.358 **	(.130)	.702 **	(.249)
NS/Post-Move	.286 *	(.113)	.137 *	(.060)	.039	(.071)	.053	(.140)
PEI/Post-Move	.122	(.368)	.196	(.169)	.956 **	(.297)	.182	(.380)
NB/Post-Move	.002	(.153)	-.073	(.071)	.096	(.094)	.053	(.155)
QUE/Post-Move	-.200	(.104)	.102 *	(.045)	.060	(.063)	.124	(.118)
ONT/Post-Move	.013	(.060)	.080 **	(.027)	.000	(.033)	.055	(.058)
MAN/Post-Move	.153	(.150)	.240 **	(.063)	.089	(.073)	.070	(.137)
SASK/Post-Move	.090	(.150)	.178 **	(.067)	.012	(.101)	-.296 *	(.147)
ALTA/Post-Move	-.030	(.076)	.098 *	(.038)	.117 **	(.043)	.020	(.075)
BC/Post-Move	-.024	(.084)	-.003	(.034)	.099 *	(.039)	.034	(.083)
NFLD/Movers	1.054 **	(.129)	.272 **	(.065)	.581 **	(.107)	.072	(.156)
NS/Movers	.488 **	(.099)	.081	(.055)	.053	(.067)	.012	(.132)
PEI/Movers	.817	(.337)	.333 *	(.159)	.075	(.180)	.126	(.465)
NB/Movers	.385 **	(.120)	.079	(.069)	-.053	(.079)	-.425 **	(.160)
QUE/Movers	.244 *	(.114)	.273 **	(.075)	.074	(.085)	.391 *	(.190)
ONT/Movers	-.141 *	(.063)	-.071 *	(.030)	-.178 **	(.037)	-.412 **	(.065)
MAN/Movers	.354 **	(.103)	-.085	(.048)	-.059	(.060)	-.119	(.104)
SASK/Movers	.233 *	(.092)	.180 **	(.052)	.223 **	(.070)	.101	(.096)
ALTA/Movers	-.068	(.072)	-.051	(.033)	-.030	(.040)	-.128	(.072)
BC/Movers	.033	(.083)	.047	(.042)	-.022	(.052)	.053	(.083)
Maritime/Returners	-.044	(.147)	-.408 **	(.104)	.158	(.126)	.220	(.208)
QUE/Returners	-.054	(.307)	-.363 *	(.173)	-.085	(.224)	-1.976 **	(.656)
ONT/Returners	-.476 **	(.146)	-.189 *	(.085)	-.213	(.112)	.046	(.151)
MAN/Returners	-.050	(.246)	-.252	(.196)	.092	(.187)	-1.148 **	(.328)
SASK/Returners	-.134	(.246)	-.221	(.162)	-.047	(.210)	.589	(.464)
ALTA/Returners	-.358 *	(.160)	-.233 *	(.104)	.018	(.121)	.034	(.248)
BC/Returners	.278	(.210)	.107	(.107)	.331 *	(.164)	.446 *	(.176)
Min. Language (ENG/FR)								
English-Quebec	.004	(.026)	.015	(.011)	.005	(.010)	.004	(.013)
French-ROC	.008	(.036)	.018	(.018)	.003	(.018)	-.042	(.026)
Eng-Que/Mover	-.194	(.179)	-.085	(.098)	.097	(.109)	-.324	(.225)
Fr-ROC/Mover	.044	(.144)	-.017	(.078)	-.162	(.103)	.137	(.240)
Eng-Que/Returner	-.129	(.453)	.082	(.300)	-1.196 **	(.409)	1.677 *	(.804)
Fr-ROC/Returner	.328	(.827)	.520 *	(.255)	-.468	(.434)	-1.640 *	(.674)
Personal Characteristics (single, no children)								
Married, no children	-.018	(.013)	.004	(.005)	.015 *	(.007)	.007	(.008)
Married with children	.042 **	(.009)	-.012 **	(.004)	.010 *	(.005)	.025 **	(.007)
Lone parent	.011	(.016)	-.024 *	(.010)	-.002	(.010)	.000	(.014)
Age	-.034	(.108)	-.087 **	(.014)	-.001	(.017)	.111 **	(.029)
Age squared	.0000	(.0024)	.0013 **	(.0002)	.0000	(.0002)	-.0012 **	(.0003)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Table 5b : Post-Move Earnings Profiles, Starting the First Year in the New Province, Female

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	-.565	(1.397)	1.091 **	(.287)	-.796	(.448)	-1.020	(.885)
Province (ONT)								
NFLD.	-.029	(.033)	.00005	(.018)	-.027	(.016)	-.071 **	(.021)
N.S.	.028	(.026)	.019	(.014)	-.040 **	(.013)	-.035 *	(.017)
P.E.I.	-.018	(.059)	.024	(.034)	.030	(.031)	-.017	(.039)
N.B.	-.008	(.029)	-.011	(.016)	-.022	(.015)	-.005	(.017)
QUE.	-.042 **	(.012)	.001	(.006)	-.025 **	(.006)	-.019 **	(.007)
MAN.	-.044	(.024)	-.006	(.013)	.005	(.011)	.003	(.014)
SASK.	-.080 **	(.027)	-.017	(.013)	-.013	(.012)	-.013	(.015)
ALTA.	-.067 **	(.017)	-.026 **	(.009)	-.011	(.008)	-.017	(.010)
B.C.	.025	(.017)	.011	(.009)	.026 **	(.007)	.016	(.009)
Mobility Status (stayers)								
NFLD/Post-Move	.412	(.278)	.117	(.158)	.341	(.219)	.390	(.400)
NS/Post-Move	.199	(.131)	.324 **	(.092)	.373 **	(.104)	.534 **	(.201)
PEI/Post-Move	-.019	(.395)	.571 *	(.291)	.003	(.263)	.068	(.894)
NB/Post-Move	.295	(.202)	.349 **	(.116)	.730 **	(.136)	-.053	(.245)
QUE/Post-Move	-.016	(.142)	.209 **	(.071)	.192 *	(.085)	-.193	(.209)
ONT/Post-Move	.174 *	(.072)	.112 **	(.040)	.165 **	(.047)	.088	(.074)
MAN/Post-Move	-.309	(.184)	.173	(.098)	.408 **	(.124)	.184	(.200)
SASK/Post-Move	-.015	(.157)	.067	(.103)	.323 *	(.127)	.237	(.231)
ALTA/Post-Move	.068	(.079)	.019	(.055)	-.036	(.066)	.251 *	(.117)
BC/Post-Move	.047	(.084)	.129 *	(.050)	.300 **	(.056)	.483 **	(.087)
NFLD/Movers	.386 *	(.174)	.045	(.130)	.124	(.159)	-.275	(.213)
NS/Movers	.302 **	(.117)	-.136	(.087)	-.103	(.107)	.205	(.209)
PEI/Movers	.353	(.270)	-.253	(.182)	.104	(.220)	-	
NB/Movers	.336	(.183)	-.120	(.110)	-.202	(.155)	.120	(.248)
QUE/Movers	.174	(.142)	.009	(.113)	-.504 **	(.128)	.323	(.400)
ONT/Movers	-.181 *	(.078)	-.187 **	(.048)	-.466 **	(.060)	-.429 **	(.092)
MAN/Movers	.282 *	(.110)	-.336 **	(.075)	-.336 **	(.085)	-.530 **	(.142)
SASK/Movers	.237 *	(.108)	-.186 *	(.084)	.119	(.086)	-.477 **	(.174)
ALTA/Movers	.071	(.086)	-.208 **	(.048)	-.182 **	(.064)	-.328 **	(.099)
BC/Movers	.129	(.092)	-.096	(.067)	.003	(.077)	-.063	(.151)
Maritime/Returners	.096	(.184)	-.326 *	(.148)	-.124	(.173)	-.207	(.400)
QUE/Returners	-.503	(.367)	.020	(.309)	-.749 **	(.261)	-.504	(.893)
ONT/Returners	-.550 *	(.237)	-.598 **	(.140)	-.618 **	(.167)	-.175	(.283)
MAN/Returners	-.190	(.310)	-.434	(.236)	-1.438 **	(.345)	-.225	(.480)
SASK/Returners	-.468	(.278)	-.179	(.259)	.282	(.309)	-1.298 **	(.480)
ALTA/Returners	-.129	(.219)	-.331 *	(.155)	.304	(.230)	-1.410 **	(.310)
BC/Returners	-.430	(.221)	-.539 **	(.185)	-.413 *	(.185)	.140	(.400)
Min. Language (ENG/FR)								
English-Quebec	.089 **	(.029)	-.039 *	(.015)	.014	(.013)	.002	(.015)
French-ROC	.073	(.048)	.011	(.025)	.021	(.023)	-.008	(.029)
Eng-Que/Movers	-.035	(.203)	.248	(.152)	.651 **	(.184)	-.236	(.427)
Fr-ROC/Movers	.255	(.219)	.116	(.121)	.240	(.152)	-.736	(.412)
Eng-Que/Returners	.319	(.819)	-.693	(.455)	.595	(.369)	-	-
Fr-ROC/Returners	.436	(.522)	.275	(.590)	-.292	(.710)	-	-
Personal Characteristics (single, no children)								
Married, no children	-.163 **	(.013)	-.144 **	(.008)	-.033 **	(.009)	-.009	(.009)
Married with children	.088 **	(.012)	.045 **	(.007)	.059 **	(.007)	.019 *	(.008)
Lone parent	.049 **	(.018)	.020 *	(.010)	.020 *	(.009)	.015	(.011)
Age	.107	(.126)	-.075 **	(.020)	.048 *	(.023)	.054	(.038)
Age squared	-.0034	(.0029)	.0013 **	(.0003)	-.0007 *	(.0003)	-.0007	(.0004)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Dashes (-) indicate there were no such observations.

Table 6a : Post-Move Earnings Profiles, Starting the Second Year in the New Province, Male

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	1.226	(1.484)	1.253 **	(.222)	.182	(.355)	-2.883 **	(.747)
Province (ONT)								
NFLD.	-.049	(.034)	.032 *	(.014)	.020	(.012)	.021	(.017)
N.S.	.021	(.025)	-.002	(.010)	-.013	(.010)	-.034 **	(.013)
P.E.I.	-.030	(.064)	.065 *	(.027)	-.033	(.024)	.029	(.032)
N.B.	.013	(.029)	.037 **	(.012)	.004	(.011)	.011	(.015)
QUE.	-.012	(.013)	-.004	(.005)	.006	(.004)	-.013 *	(.006)
MAN.	-.033	(.024)	.018	(.009)	.007	(.009)	.000	(.012)
SASK.	-.062 *	(.027)	-.002	(.010)	.000	(.010)	-.007	(.013)
ALTA.	-.015	(.018)	.008	(.007)	.005	(.006)	.009	(.008)
B.C.	.023	(.019)	.028 **	(.007)	.026 **	(.006)	.033 **	(.007)
Mobility Status (stayers)								
NFLD/Post-Move	.419	(.218)	-.032	(.092)	.006	(.151)	-.019	(.267)
NS/Post-Move	.137	(.141)	.058	(.065)	-.056	(.078)	.054	(.184)
PEI/Post-Move	.052	(.367)	-.118	(.193)	.195	(.293)	.101	(.328)
NB/Post-Move	-.133	(.245)	.058	(.077)	.048	(.105)	-.171	(.181)
QUE/Post-Move	-.101	(.127)	-.031	(.048)	-.057	(.064)	.208	(.133)
ONT/Post-Move	.074	(.080)	-.032	(.030)	.002	(.035)	-.061	(.063)
MAN/Post-Move	.165	(.197)	-.002	(.071)	.056	(.082)	.038	(.150)
SASK/Post-Move	.051	(.192)	-.004	(.074)	-.076	(.100)	.395 *	(.181)
ALTA/Post-Move	-.033	(.100)	.040	(.041)	.111 *	(.048)	-.011	(.079)
BC/Post-Move	.070	(.122)	-.034	(.038)	-.009	(.042)	-.017	(.087)
NFLD/Movers	.933 **	(.168)	.302 **	(.091)	.680 **	(.115)	.071	(.175)
NS/Movers	.440 **	(.119)	.089	(.059)	.063	(.071)	.041	(.137)
PEI/Movers	.485	(.368)	.308	(.178)	.074	(.196)	.117	(.462)
NB/Movers	.354 *	(.138)	.073	(.074)	-.088	(.087)	-.440 **	(.164)
QUE/Movers	.290 *	(.148)	.318 **	(.085)	.094	(.088)	.325	(.197)
ONT/Movers	-.129	(.076)	-.061	(.032)	-.237 **	(.040)	-.416 **	(.070)
MAN/Movers	.315 *	(.123)	-.118 *	(.053)	.007	(.062)	-.147	(.108)
SASK/Movers	.258 *	(.106)	.151 **	(.057)	.148 *	(.075)	.338 **	(.103)
ALTA/Movers	-.175 *	(.087)	-.071 *	(.036)	-.003	(.042)	-.095	(.074)
BC/Movers	.030	(.107)	.007	(.045)	-.002	(.055)	-.040	(.102)
Maritime/Returners	.099	(.174)	-.317 **	(.110)	.158	(.125)	.218	(.206)
QUE/Returners	-.055	(.404)	-.301	(.191)	-.197	(.238)	-1.972 **	(.652)
ONT/Returners	-.413 *	(.181)	-.181	(.093)	-.165	(.114)	.004	(.183)
MAN/Returners	.108	(.306)	-.252	(.224)	-.359	(.206)	-.219	(.377)
SASK/Returners	-.128	(.331)	-.286	(.176)	-.062	(.261)	.588	(.461)
ALTA/Returners	-.279	(.191)	-.286 **	(.107)	.033	(.122)	-.148	(.266)
BC/Returners	.240	(.234)	-.101	(.120)	.160	(.195)	.369 *	(.188)
Min. Language (ENG/FR)								
English-Quebec	.019	(.031)	.023	(.012)	-.008	(.011)	.000	(.014)
French-ROC	-.004	(.046)	.029	(.019)	.000	(.019)	-.027	(.027)
Eng-Que/Movers	-.281	(.243)	-.187	(.108)	.079	(.113)	-.123	(.238)
Fr-ROC/Movers	.146	(.169)	.041	(.083)	-.069	(.103)	.058	(.256)
Eng-Que/Returners	-.256	(.818)	.305	(.322)	-1.054 *	(.413)	1.677 *	(.799)
Fr-ROC/Returners	.216	(.828)	.168	(.270)	.628	(.595)	***	
Personal Characteristics (single, no children)								
Married, no children	-.024	(.015)	.006	(.006)	.017 *	(.007)	.008	(.009)
Married with children	.034 **	(.011)	-.009	(.005)	.010 *	(.005)	.024 **	(.008)
Lone parent	-.040 *	(.020)	-.022 *	(.010)	-.003	(.010)	-.005	(.015)
Age	-.053	(.134)	-.072 **	(.015)	-.005	(.018)	.129 **	(.030)
Age squared	.0004	(.0030)	.0011 **	(.0003)	.000	(.0002)	-.0014 **	(.0003)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Table 6b : Post-Move Earnings Profiles, Starting the Second Year in the New Province, Female

	Entry (20-24)		Younger (25-34)		Prime-Younger (35-44)		Prime-Older (45-54)	
Intercept	.245	(1.836)	.886 **	(.312)	-.849	(.488)	-.782	(.804)
Province (ONT)								
NFLD.	-.031	(.040)	.002	(.020)	-.022	(.016)	-.093 **	(.022)
N.S.	.019	(.032)	.026	(.015)	-.022	(.013)	-.006 *	(.017)
P.E.I.	-.015	(.070)	.014	(.037)	.013	(.032)	.007	(.041)
N.B.	.004	(.034)	-.009	(.017)	-.016	(.015)	.002	(.018)
QUE.	-.060 **	(.015)	.008	(.007)	-.023 **	(.006)	-.009	(.008)
MAN.	-.039	(.029)	.000	(.014)	.013	(.011)	.003	(.015)
SASK.	-.099 **	(.033)	-.004	(.014)	-.014	(.013)	-.001	(.018)
ALTA.	-.066 **	(.021)	-.023 *	(.009)	-.018 *	(.008)	-.013	(.011)
B.C.	.028	(.021)	.016	(.009)	.037 **	(.007)	.022 *	(.009)
Mobility Status (stayers)								
NFLD/Post-Move	.197	(.435)	.042	(.159)	-.026	(.223)	-	-
NS/Post-Move	-.058	(.187)	.059	(.097)	.055	(.114)	-.271	(.196)
PEI/Post-Move	.265	(.439)	.072	(.331)	.001	(.254)	.451	(.883)
NB/Post-Move	.112	(.263)	.120	(.124)	.044	(.140)	-.305	(.242)
QUE/Post-Move	-.222	(.181)	.022	(.078)	.064	(.091)	-.195	(.189)
ONT/Post-Move	-.042	(.091)	.024	(.043)	-.016	(.050)	.060	(.077)
MAN/Post-Move	-.138	(.242)	-.006	(.107)	.023	(.131)	.251	(.216)
SASK/Post-Move	.014	(.192)	.034	(.109)	.047	(.129)	-.132	(.305)
ALTA/Post-Move	-.044	(.103)	-.106	(.058)	.178 *	(.071)	.184	(.119)
BC/Post-Move	.025	(.117)	.002	(.053)	.086	(.059)	.314 **	(.099)
NFLD/Movers	.499 *	(.208)	.071	(.139)	.170	(.173)	-.219	(.228)
NS/Movers	.255	(.134)	-.050	(.092)	-.011	(.114)	.210	(.206)
PEI/Movers	.190	(.314)	-.368 *	(.184)	.238	(.238)	-	
NB/Movers	.217	(.234)	-.027	(.120)	-.014	(.168)	-.517	(.306)
QUE/Movers	-.089	(.199)	.005	(.127)	-.569 **	(.131)	.162	(.482)
ONT/Movers	-.280 **	(.094)	-.270 **	(.053)	-.418 **	(.062)	-.482 **	(.100)
MAN/Movers	.171	(.135)	-.491 **	(.083)	-.418 **	(.089)	-.297	(.153)
SASK/Movers	.327 **	(.127)	-.163	(.093)	.230 *	(.089)	-.087	(.183)
ALTA/Movers	.052	(.107)	-.220 **	(.054)	-.116	(.066)	-.342 **	(.102)
BC/Movers	.002	(.117)	-.079	(.073)	-.205 *	(.084)	.012	(.188)
Maritime/Returners	.421	(.245)	.067	(.168)	-.181	(.172)	-.161	(.483)
QUE/Returners	.016	(.500)	-.006	(.329)	-.747 **	(.252)	-	-
ONT/Returners	-.649	(.365)	-.837 **	(.155)	-.566 **	(.172)	.009	(.341)
MAN/Returners	-.562	(.388)	-.332	(.255)	-1.438 **	(.304)	-.224	(.483)
SASK/Returners	-1.221 **	(.389)	-.307	(.265)	.292	(.299)	-1.303 **	(.483)
ALTA/Returners	-.236	(.251)	-.389 *	(.155)	.316	(.223)	-.948 **	(.341)
BC/Returners	-.216	(.280)	-.600 **	(.208)	-.413 *	(.178)	.138	(.394)
Min. Language (ENG/FR)								
English-Quebec	.080 *	(.036)	-.058 **	(.017)	.029 *	(.014)	-.001	(.018)
French-ROC	.080	(.058)	.025	(.027)	.018	(.023)	-.017	(.030)
Eng-Que/Movers	.136	(.264)	.186	(.186)	.583 **	(.172)	-.200	(.507)
Fr-ROC/Movers	.346	(.255)	.023	(.132)	.240	(.162)	-1.195 *	(.404)
Eng-Que/Returners	-		-.786	(.488)	.809	(.371)	-	-
Fr-ROC/Returners	.277	(.534)	.126	(.832)	-.332	(.660)	-	-
Personal Characteristics (single, no children)								
Married, no children	-.152 **	(.015)	-.147 **	(.008)	-.028 **	(.009)	-.008	(.009)
Married with children	.099 **	(.014)	.038 **	(.007)	.056 **	(.007)	.018 *	(.008)
Lone parent	.054 *	(.023)	.009	(.011)	.023 *	(.009)	.014	(.012)
Age	.033	(.185)	-.081 **	(.021)	.039	(.024)	.044	(.038)
Age squared	-.0017	(.0037)	.0011 **	(.0004)	-.0006	(.0003)	-.0006	(.0004)

Standard errors are shown in parentheses. One asterisk indicates that the coefficient is significantly different from zero at the .05 confidence level according to a two-tailed t-test, two asterisks indicates significance at the .01 level. The models also include indicators of "arrivers" and "transients".

Dashes (-) indicate there were no such observations.

Figure 1a: Fixed Effects – Male

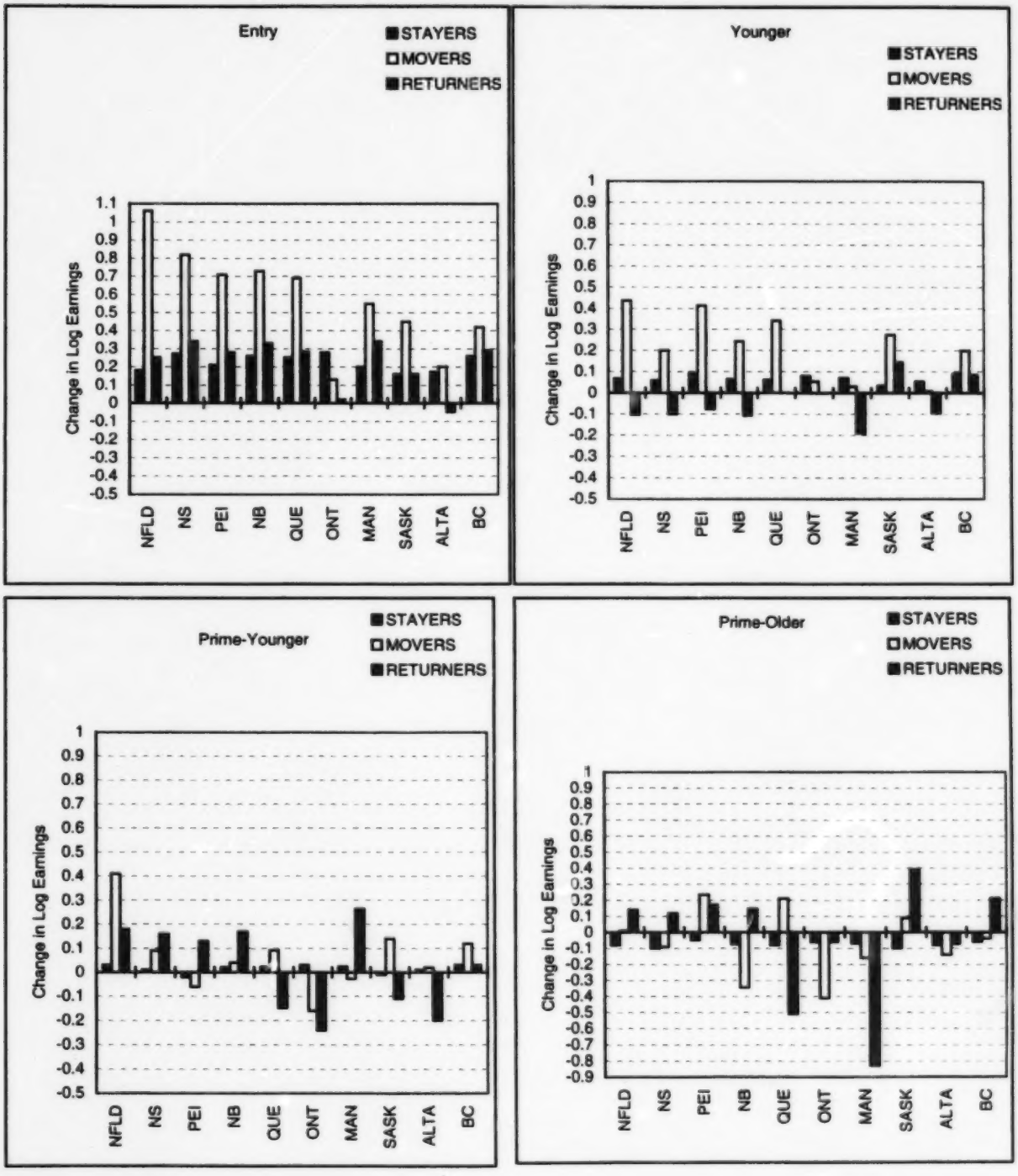
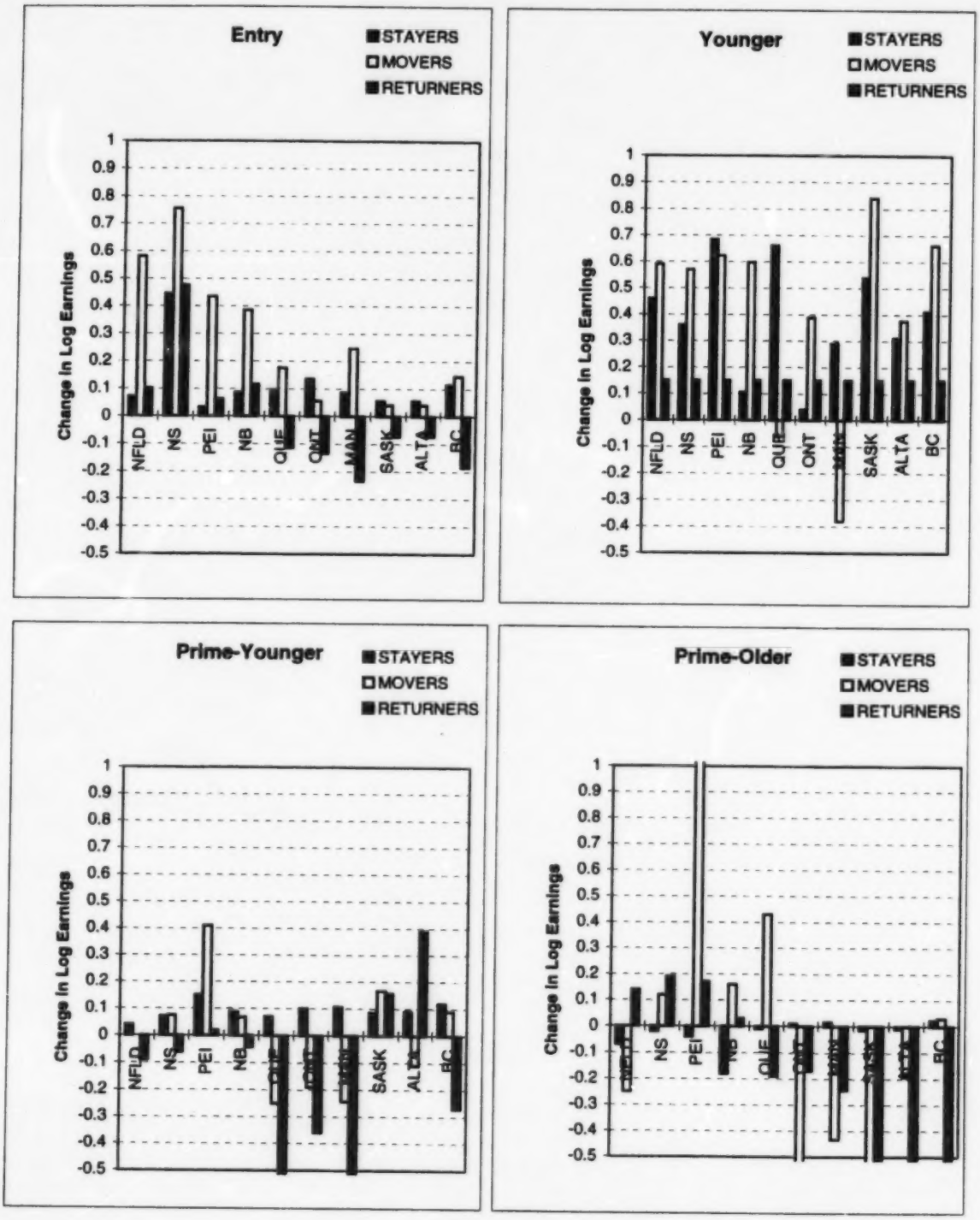


Figure 1b: Fixed Effects – Female



References

Atkinson, A.B., F. Bourguignon and C. Morrison [1992]. *Empirical Studies of Earnings Mobility* (Switzerland: Harwood Academic Publishers).

Beach, Charles M. and Ross Finnie [1998]. "Earnings Mobility Benchmarks and Longitudinal Polarization in Canada, 1982-94", *Canadian Business Economics*.

Courchene, Thomas J. [1970]. "Interprovincial Migration and Economic Adjustment", *Canadian Journal of Economics*, V.3, N. 4 (November), pp. 550-76.

Courchene, Thomas J. [1974]. *Migration, Income and Employment* (Toronto: C.D. Howe Institute).

Day, Kathleen [1992]. "Interprovincial Migration and Local Public Goods", *Canadian Journal of Economics*, V. XXV, N. 1 (February), pp. 123-44.

Day, Kathleen and Stan Winer [1994]. "Internal Migration and Public Policy: An Introduction to the Issues and a Review of Empirical Research in Canada", in A. Maslove (ed.), *Issues in the Taxation of Individuals* (University of Toronto Press).

Dean, James M. [1992]. "Tax-Induced Migration in Canada 1972-79", *Western Economic Review*, V. 1, N. 2, pp. 17-31.

Finnie, Ross [1997a]. "Earnings Patterns by Age and Sex in Canada, 1982-92", Human Resources Development Canada (Applied Research Branch) Research Paper R-97-11E). See also "Earnings Patterns by Age and Sex" (with Gaétan Garneau), *Canadian Economic Observer*, October, 1997, Statistics Canada Catalogue No. 11-010-XPB.

_____ [1997b]. "Stasis and Change: Trends in Earnings Levels and Inequality, 1982-92", *Canadian Business Economics*, Vol. 5, No. 4 (Fall 1997), pp. 84-107.

_____ [1997c]. "Earnings Mobility in Canada, 1982-92", Human Resources Development Canada (Applied Research Branch) Working Paper W-97-3Ea.

_____ [1997d]. "The Distribution of Earnings in a Dynamic Context in Canada, 1982-92", Human Resources Development Canada (Applied Research Branch) Working Paper W-97-3Eb.

_____ [1997e]. "The Correlation of Individuals' Earnings Over Time in Canada, 1982-92", Human Resources Development Canada (Applied Research Branch) Working Paper W-97-3Ec.

_____ [1997f]. "A Dynamic Analysis of Low Market incomes ("Market Poverty") of Canadian Families With Children 1982-93", Human Resources Development Canada (Applied Research Branch) Working Paper W-97-3Ed.

_____ [1997g]. "Unequal Inequality: The Distribution of Individuals' Earnings by Province 1982-94", Human Resources Development Canada (Applied Research Branch) Working Paper.

Finnie, Ross [1998a]. "Inter-Provincial Mobility in Canada: A Longitudinal Analysis", Human Resources Development Canada (Applied Research Branch) Working Paper.

_____ [1998b]. "The Patterns of Inter-Provincial Migration in Canada 1982-95: Evidence from Longitudinal Tax-Based Data", School of Policy Studies at Queen's University mimeo.

_____ [1998c]. "Inter-Provincial Migration: A Longitudinal Analysis of Movers and Stayers", School of Policy Studies at Queen's University mimeo.

_____ [2000]. "Who Moves? – A Panel Logit Model Analysis of Inter-Provincial Migration In Canada", Research Paper No. 142. Analytical Studies Branch. Ottawa: Statisitics Canada.

Finnie, Ross and Charles Beach [1998]. "Earnings Mobility Benchmarks and Longitudinal Polarization in Canada, 1982-94" (with Charles M. Beach), *Canadian Business Economics*.

Finnie, Ross, and David Gray [1998]. "The Dynamics of the Earnings Distribution in Canada: An Econometric Analysis", Human Resources Development Canada (Applied Research Branch) Working Paper.

Grant, E. Kenneth and John Vanderkamp [1976]. *The Economic Causes and Effects of Migration: Canada, 1965-7*", Economic Council of Canada (Ottawa: The Queen's Printer).

_____ [1980]. "The Effects of Migration on Income: A Micro Study with Canadian Data 1965-71", *The Canadian Journal of Economics*, V. 13, N. 3 (August), pp. 381-406.

Greenwood, Michael [1975]. "Research on Internal Migration in the United States: A Survey", *Journal of Economic Literature*, V. 13, pp. 397-433.

Lin, Zhengxi [1995]. "Interprovincial Labour Mobility in Canada: The Role of Unemployment Insurance and Social Assistance", Human Resources Development Canada (Evaluation Branch) Research Paper.

Marr, William L. and Frank W. Millerd [1980]. "Employment and Income Levels of Inter-Provincial Migrants Versus Non-Migrants, Canada 1971", in Simon, J. L. and J. DaVanzo (eds.), *Research in Population Economics*, Vol. 2 (Greenwich, Conn.: JAI Press).

Mills, K. E., M. Percy and L. S. Wilson [1983]. "The Influence of Fiscal Incentives on Interregional Migration: Canada 1961-78", *The Canadian Journal of Regional Science*, V. VI, N. 2 (Autumn), pp. 207-229.

Nakosteen, Robert A. and Michael Zimmer [1980]. "Migration and Income: the Question of Self-Selection", *Southern Economic Journal*, V. 46, pp. 840-51.

OECD [1996]. *Employment Outlook*, Chapter 3: "Earnings Inequality, Low-Paid Employment and Earnings Mobility", pp. 59-108 (Paris: Organization for Economic Co-operation and Development).

Osberg, Lars, Daniel Gordon and Zhengxi Lin [1994]. "Interregional Migration and Interindustry Labour Mobility in Canada: A Simultaneous Approach", *Canadian Journal of Economics*, V. XXVII, N. 1 (February), pp. 58-80.

Robinson, Chris and Nigel Tomes [1982]. "Self-Selection and Interprovincial Migration in Canada", *Canadian Journal of Economics*, V. XV, N. 3 (August), pp. 474-502.

Rosenbluth, Gideon [1996]. "Interprovincial Migration and the Efficacy of Provincial Job Creation Policies", *Canadian Business Economics*, Vol. 4, No. 2 (Winter), pp. 22-35.

Shaw, R. Paul [1986]. "Fiscal Versus Traditional Market Variables in Canadian Migration", *Journal of Political Economy*, V. 94, N. 3, pp. 648-666.

Sjaastad, Larry [1962]. "The Costs and Returns of Human Migration", *Journal of Political Economy (Supplement)*, V. 70, pp. 80-93.

Vanderkamp, John [1988]. "Regional Disparities: A Model with Some Econometric Results for Canada", pp. 269-96 in Higgins, B. and D. J. Savoie (eds.), *Regional Economic Development: Essays in Honour of François Penoux* (Boston: Unwin Hyman).

Vachon, Marc and François Vaillancourt [1998]. "Interprovincial Mobility in Canada, 1961-1996: Trends and Determinants", in Lazar, Harvey (ed.), Centre for Intergovernmental Relations, Queen's University at Kingston, Ontario.

Winer, Stanley L. and Denis Gauthier [1982]. *Internal Migration and Fiscal Structure*, Economic Council of Canada (Ottawa: Supply and Services Canada).

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